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INAME: GIRHARD, Charles E. **Text w/Tape:**

IPLACE: NSA, SAB2, Ft. Meade, MD

IVIEWER: FARLEY, R.D.

[Tape 1, Side 1]

Farley: Today is 26 October, 1982. Our interviewee: Mr. Charles E. Girhard. Mr. Girhard, as a Second Lieutenant, was the first American Army Signal Corps officer in World War II to join the newly-founded Australian COMINT organization, which later became Central Bureau at Melbourne and Brisbane. Lieutenant Girhard established the American cryptanalytic section within CB and served with the organization throughout World War II in Australia and the Philippines. Mr. Girhard will recount his experiences from early 1942 with the SIS organization at the Munitions Building to 1946, when he returned to Arlington Hall as an Army Major. The interview is taking place in [redacted] interview room, SAB II, NSA at Fort Meade. Interviewer: Bob Farley. Mr. Girhard desires that the classification of these three tapes be Secret - Handle Via COMINT Channels Only [SECRET//COMINT].

Farley: Charlie, I do appreciate your time. I know you're busy and it's hard to catch you on the run here, so we do appreciate the time. Charlie, what I'd like to do is recount your career, starting with your personal background - just high school days, before you went to college. Pick up your college days and then you can take it from there.

Girhard: I came from a very small town - a farming community in southern Illinois and I went to high school in Newton, Illinois. When I finished high school I went on to the University of Illinois and actually majored in chemistry. I took Signal Corps ROTC, which was compulsory for everybody for the first two years, since Illinois was a land grant college. When I was a sophomore - actually, I guess, while I was there, they came with the ROTC program at the University of Illinois - I mean the Signal Intelligence Service, where they had their own cryptographic course at the University of Illinois.

Farley: Tell me about that course, Charlie. What did it entail? Was it working problems.

Girhard: Essentially it was working problems, but they had a Colonel and a Lieutenant Colonel who taught the course. Actually, they just used crypt

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one, crypt two, crypt three - the cryptography just used the manuals and you really were pretty much on your own to figure things out, because the instructors were fairly... after you solved the problem, you had to explain it to the instructors, because the instructors were Regular Army Signal Corps, both of them, and very competent people. But it was all new to them. How Illinois was selected for that, I have no idea. But I think I might have been part of the second class. Dale (B% Marsden) came after me and Kirby came after him. I'm trying to think if there's anybody in the class before me. But there was one class - I think I was part of the second class. There were, say, six or seven in this. You still had the regular Signal Corps, but six to seven took part of the regular Signal Corps course and then you took part of the cryptography course. So when you were commissioned, you got commissioned in the Signal Corps.

Farley: Charlie, was there any summer camp at all? Did you come to Washington to work?

Girhard: The summer camp (2G) Battle Creek, Michigan, and it was just a regular Signal Corps course. When I graduated and got my commission in June, then I did get two weeks' active duty at the...

Farley: June of what year, Charlie?

Girhard: June of 1940. I did come to Washington and did have two weeks' training at the old Munitions Building, and that's where I met the old-timers who were there. At that time, the Munitions Building was pretty small. Anyway, I had just two weeks of active duty. I remember Sergeant (B% Cretlokaydee) took the crypt courses - it was just more of the crypt courses that you did during that two weeks. But again you met a lot of the people that were... the place, at that time, was something like 20 or 30 people, something like that.

Farley: Did you go into a civilian job after graduation?

Girhard: After graduating, I had a graduate assistant in chemistry at Penn State and so I worked at Penn State and I was working on my master's degree and also teaching chemistry at the state college and come January, I got orders to report to Fort Monmouth.

Farley: January of '41?

Girhard: January of '41. I reported to Fort Monmouth, where I went into the refreshment (sic) course and then, all of a sudden, I get orders to report down to the Munitions Building in Washington. I think what happened is that they were calling all the Signal Corps officers and the people down in Washington realized that they didn't call the officers down there. When I was in Monmouth, Paul Neff, Charlie (B% Heyser) and I were all at Monmouth at the same time and so when we got the orders, we all went down to Washington together.

Farley: Was there a crypt school at Monmouth at the time?

Girhard: No, it was just the regular...

Farley: Just the basic Signal Corps.

Girhard: (XB) realized that they were calling all the Signal Corps officers and when the Chief Signal Officer realized they were just going to assign all of us to regular Signal Corps duty, and that's when they called the three of us to go down. It was March of '41, after we spent six weeks or something like that at Fort Monmouth. So then all three of us were actually assigned to Dr. Sinkov. We worked in the Italian section.

Farley: Tell me about the reception when all these officers joined SIS Munitions Building. Did they have a separate training course for you or did they assign you immediately to a desk?

Girhard: They just assigned us immediately to a job. The reason we went over to the Italian section, Dr. Sinkov had just spent a couple of months over in England and he'd picked up the code books and all the progress that they had made on the Italian diplomatic system, primarily. As a result, they had a lot of traffic and a lot of work to be done. So we got right in to the assignment. The German section, the Italian section and the Japanese section were the three that were relatively busy at that time, so everybody that came in either got assigned to one of the three. Since the Japanese section had a regular, because they there working on that all the time and they had people in that. But the Italian section was being started up from scratch. I mean, Abe didn't have anybody; he only had three or four people. That's where Wilma was working - Wilma (2G). So we all went to work in the... the whole section probably, with the addition, consisted of maybe a dozen people.

Farley: What was the atmosphere in SIS? Was it pleasant working?

Girhard: It was very informal. I just can't imagine anybody less military than Kullback and Sinkov, so it was... we had to serve duty officer, but there was very little... almost like a civilian setup. Most of the people were fairly new. People like Hugh Erskine and Wilma had been around maybe a year or so, but most of the people had come on (3G).

Farley: Was Hugh Erskine there then?

Girhard: Yeah.

Farley: That's the first time that I've heard that he was there. What was he doing?

Girhard: He was a Japanese linguist, so he was there fairly early.

Farley: Was he working with John Hurt?

Girhard: Yes. And Reischauer, who worked (XG) I guess the Reischauer (XG)

Farley: The ambassador? Oh, the sister of the ambassador.

Girhard: You know, Japanese linguists were very much in demand, because of reading the Purple at that time. They had broken into it, I don't know, six months before or something like that. (TR NOTE: Mr. Girhard sounds very soft-spoken. Readability on him is only fair throughout interview - and

sometimes poor)

Farley: Were you aware of what was going on in the other sections?

Girhard: You had a pretty good idea. You could walk around and talk to them. I was duty officer and the duty officer had translations all the time. In such a small outfit, I would (XG). There might have been a hundred people altogether, so you knew almost everybody. At least in the first year that I was there.

Farley: Charlie, I've got a list of personalities. If you want to comment on them, fine. Friedman - tell me about your impression of Willie Friedman.

Girhard: I never really worked with him. I knew him. He was very pleasant to talk to, but before (2G) duty, he'd been ill and been away for a while, so I never knew him to be in the middle of the technical field.

Farley: That's what I was going to ask next - whether he was down there...

Girhard: (XB) he was always involved in the training part. What he had done prior to when I came down... but I don't believe he was ever really involved after the time I came seriously in the solution part of it. (XG) training part of it and maybe special advisor. (XG) while I was there. I was there a year before I got shipped overseas. But I never saw him around to speak of then.

Farley: Okay. I have Kullback, Sinkov and Rowlett - I don't think you even need to comment on those. How about Charlie (B% Heyser)? Was he a pretty eager young man at the time?

Girhard: Oh, yes. He worked in the same section and he was always very competent. I thought a very, very fine gentleman. I was always impressed with him.

Farley: Was Earl Cook there?

Girhard: Earl Cook was in charge of the intercept side. He was the guy that (XG) so we never had a lot to do with him. I mean he was intercept control and that type of thing.

Farley: How about Russ Horton? Was he there? Did you ever see him?

Girhard: Yes, Russ Horton was the COMSEC guy. He was in the cryptographic distribution and Sigabas and that type of thing. He was in that side, which was also right around there, too. That was a relatively small office, too.

Farley: Bob Schukraft?

Girhard: Yes, Bob was around. (XB)

Farley: Was he involved in... ?

Girhard: He was in the intercept side, I think. (XG) Earl Cook.

Farley: I know there have been many stories about John Hurt and what a character he was. Do you remember any stories?

Girhard: Oh, yes. I was actually on duty - he was a wonderful fellow. I was on duty

one night when he had a bleeding ulcer or something and he got sick and passed out. I had to get the doctors there to... He was one of the translators and he was really a real character, but an awfully nice fellow. I liked him a lot. He's not living now?

Farley: No. Sometime ago, I guess, Charlie.

Girhard: He was a real character, but I'm sure he was a very competent Japanese linguist.

Farley: Was Larry Clark as aggressive as he was in later years when you first knew him in 1941?

Girhard: I don't think Larry changed an awful lot. I always liked Larry very much. I always had the feeling that he was probably his own worst enemy but really the more you got to know him, the better you liked him. He had a temper, but I think he did forget - he didn't carry grudges. He had the machine background at that time and he was very competent. But I think he sometimes got in trouble of his own doing.

Farley: Did he work with Sam Snyder pretty well? Pretty closely?

Girhard: I think in the early days. But anybody like Larry or Sam Snyder - anybody of that type was working on Japanese and Japanese only. I mean, that's about the only thing they were working on. I think they broke the Purple, which was I think almost everybody in the place was... I got the impression from talking to a lot of people that it really was a team effort. Maybe some people did a little more than others, but it was not one of these things that one person did it - it was kind of a combination and accumulation over a period of time.

Farley: Paul Neff. Was he an analyst?

Girhard: Yes. Very competent one, too.

Farley: On the Italian problem also?

Girhard: Yeah. I don't know what Paul did after he left, but he was very, very competent. He had a flair for it. A lot of the fellows were fair at it, but Paul was one that, when he was doing it, was...

Farley: Do you remember Mary Jo Dunning?

Girhard: Yes, I do. She was one of the old-timers.

Farley: And there was another gal. I can't remember her name. The one who supposedly originally broke Purple. She's married. She has a Jewish name. I can't remember her name. She lives out in Virginia. I have a picture in there of her being awarded a certificate of accomplishment or achievement or something like that.

Girhard: I can't remember. I remember Delia Sinkov was (XB) very competent and very smart gal. She was there in the early days. I can't think who you... you give me the name, I'm sure I'd remember.

Farley: I'll think of it.

Girhard: In those days, you just knew everybody. They had parties and bowling leagues and so forth, so you...

Farley: There was a lot of social activity among the group?

Girhard: Yeah. Picnics and...

Farley: Charlie, you were there over Pearl Harbor then, weren't you?

Girhard: Right.

Farley: Do you remember anything about those days? Maybe the 5th (or) 6th?

Girhard: The only thing I can remember is that on Sunday, which was Pearl Harbor day, that Charlie (B% Heyser) and I were bowling out somewhere in Washington when we got the word over the... so we figured we'd better slip in and go into the...

Farley: Oh, you were away from the office, then?

Girhard: Yeah. It was Sunday morning and we went bowling that day. So we came in. But on these messages and all, I really don't know a thing about it - only what I've heard from some of them.

Farley: Was Frank (B% Bierce) there?

Girhard: Yeah, Frank (B% Bierce) was there. (XG)

Farley: Rex (B% Minkler)?

Girhard: Yes. (XB)

Farley: What sort of a man was he?

Girhard: He was unimpressive to me, but I was (XB)

Farley: That echoes what everybody else has said, too, Charlie.

Girhard: They had a lot of officers they assigned that came (XG) When I first came on duty, General (B% Aiken) was the boss. He was the Chief Signal Officer. Later on, when he was called to Australia, that was the reason he called for us, because he made such an urgent request for the detachment and that's the reason, really, we went down to Australia without any intercept or anything else. But (B% Aiken) had been here and when he was chosen by MacArthur as his chief signal officer, one of his first actions was to send an urgent request back here.

Farley: You anticipated a question. I was going to ask you how CB was generated. Was it something that came from the Aussies or was it... ?

Girhard: I don't really know about how it was set up because it was started before, but I think that when General (B% Aiken) and, in particular, Colonel Joe (B% Shearer) - I don't know if you've heard that name or not, but he was really the driving force behind getting us to Australia. I'm sure he was the man that got together with the Aussies when they set up the (2G) command down there and I think that's something they discussed. I'm sure that was in the early days, because this... Well, for example, I don't know what the date of MacArthur's headquarters was started, but I know my

orders - special orders number 2, that assigned me to MacArthur's headquarters - was dated around the 1st of April of 1942. So MacArthur's headquarters had not been around very long, because the request for people must have come around the first of March or somewhere like the middle of March. When they got the request, I think I had something like three or four days notice to go. The priority that we had, everywhere we went, we never stopped anywhere.

Farley: Charlie, the note that I have is that the CB was formed on the 6th of April '42 as a combined U.S. Army, Australian Army and (B% Raff - RAAF?) organization. Did you volunteer or did they say... ?

Girhard: (Inaudible response)

Farley: Fall out, huh?

Girhard: There was no volunteering in those days. They just picked, I think, what? Do you have the names anywhere?

Farley: I have the names of Clark, Hawkins, Holmes and Girhard and 12 EM in the first contingent.

Girhard: I didn't realize it was quite that many, but I know they (1G) us with the secret inks man (XG) set up a laboratory. I think Paul Albertt was... was Paul Albert in there?

Farley: Yes, later on. I guess he came in a later group. There were just four officers according to the history I've read. Who's Hawkins?

Girhard: Hawkins, I think, was kind of the maintenance man. He got himself in a little trouble. I think (B% Aiken) shipped him back in a hurry early in the game. He got in a little trouble and I think he was more in the maintenance and that type of thing. They kind of sent a person out for each category. The idea was to set up a security part, and set up a lab...

Farley: So what sort of a briefing were you people given at SIS Munitions Building before you left?

Girhard: Almost nothing. In fact, I remember that we had secret orders. Those secret orders are all right here, because they can get you transportation, but when you get your secret orders, you can't show them to anybody. So finally somebody made an extract of the secret orders. Why they ever did secret orders, because you couldn't show them to anybody. We had gas masks and guns and the whole bit. There was really no briefing; you just took off and that was it.

Farley: Did you fly China Clipper all the way, or how did you get out there?

Girhard: We flew the commercial, and I remember the only sleeper was the sleeper we flew out on. The only sleeper on a plane I've ever... I didn't even know they had them. Anyway, we had a sleeper from here to San Francisco. Then when we got to San Francisco, we reported to the Presidio. That's where I got in the orders problem, so that's where they typed the thing. So I was in San Francisco. It was night and the next day we reported in and

five o'clock the next day I get a call - You're to go to Hamilton Field. Just me. In other words, I was the first one. Because there were very few flights going out, but what they were doing was ferrying stuff over to northern Australia and nothing to where they were doing the fighting. So five o'clock a staff cars takes me and races out to Hamilton Field and I get out to Hamilton Field and I find I'm going on an LB-30. In other words, this was an Australian crew and they were flying machine guns and aircraft parts and the whole cargo part of it - the LB-30 is the same as the Liberator, except for the cargo, (new audio segment) and this one was an Australian crew. They had two passengers. The other guy was a tech rep from one of the machine gun outfits - something like that, and he was going out to show them how to install machine guns that they had in the planes. So the whole cargo was full. No heat in the whole plane and we had to fly the entire trip in the bomb bay. We had about six army blankets because it was cold. The plane was overloaded by five or six tons, so you could sit right down as we took off and look down at the ground and see we weren't leaving the ground and there's water out there. Somehow, just before we got to the water, we did take off. I remember that first flight we went into a lot of headwinds and took almost fifteen hours to get to Hawaii. So we left at six or seven o'clock after noon and we got into Hawaii at nine or ten o'clock in the morning. Then the crew had to sleep. We kept the same crew. Later on, you'd just change crews but here they only had one crew, so we got into Hawaii about ten o'clock and stayed at Pearl Harbor. So we took a look around Pearl Harbor; we could see all the damage. It was just about three months after Pearl Harbor so the damage was still there. Anyway, we toured Hawaii and then we had to get back, because at four o'clock the plane took off again. Then we went on to Christmas Island. Just the two of us and the crew. We stayed overnight in Christmas Island. Christmas Island, I remember, had a small detachment. The island may be 20 miles wide or something and nothing but palm trees. Even the officers hadn't seen a newspaper in six weeks - they were so glad to see anybody that was from civilization, because here they're out on Christmas Island, which is almost on the equator and nothing but coconut trees. So they took us around in a jeep and showed us a coconut. We had some Mahi-mahi fish. A ship hadn't been in there for two months. No letters from home. I don't know how they got down to Christmas Island this early, but all they were really doing was an airplane landing. We stayed overnight and (at) four o'clock the next morning we took off and went to - this place is even smaller than Christmas Island - Canton Island, which was just an airstrip only and then a lagoon on both sides. It was about the same type of situation. We stayed there and then the next night we fly from there to Fiji. We stayed overnight in Fiji and repeated the same thing and then we came into (B% Mascot) Field, Sydney, where we landed. Here we landed in Sydney and nobody knows anything, you know. Our orders were so secret that they wouldn't even tell us... all we were supposed to do was report to MacArthur's headquarters.

Farley: And they didn't know where it was?

Girhard: They knew, but they didn't tell us. Anyway, we ended up at the Hotel Australia, or I did. I don't know know what happened to him after that. So finally I find out how to get to Melbourne and find some way to get me on the train to Melbourne.

Farley: They selected you as the senior man to go down there and help set up the operation?

Girhard: No, I just happened to be... I think the senior man was probably Paul Albert, but I may be wrong. Otherwise it would have been Larry Clark.

Farley: Why did they select you? Do you have any idea, Charlie? You were just lucky to be pulled out of the group?

Girhard: (XB) They just... I'm sure they wanted the crypto. That's the reason I think Albert was with the group, because I think he was the senior officer. Paul W. Albert. I think he was picked from the security side - from S side. Bob Holmes was picked from the secret lab side. I think I was probably picked from the crypt side. Maybe Larry was picked from the machine side, because Larry had a lot of machine experience. So I'm sure the officers were picked and then the EMs were based on whatever the request that came back. I think the idea was to have kind of a cadre, but it just so happens I got called first and sent.

Farley: Was there any operation underway? Was (B% Sharer), Harold Brown, Clarence Yamagata... were they down there at all?

Girhard: Yamagata came much later, I know. Harold Brown - I don't know where he was - he was still in Corregidor, you know. I don't know when Corregidor was, but I remember decoding messages from Corregidor off an M94. That's one of the things... You used to get the messages from Corregidor, so I'd decode them. I don't know when Brown got out on the submarine from Corregidor; he brought three operators with him. That must have been more like May/June or something like that. Because they just came out on practically the last sub out of Corregidor. The timing I'm not too sure of. MacArthur certainly got out earlier.

Farley: Right. Tell me what you saw when you went to Melbourne. Were the Aussies welcoming you there with open arms?

Girhard: Oh, yes. Particularly the girls. Actually the Aussies were so glad to see anybody because all of their troops were in the Middle East, so there were not many healthy bodies around. There were a few in New Guinea, but there really were very few Australian troops. I mean, if the Japanese had decided to move in to Australia, I don't believe they would have had no problem at all in those days. I remember the first I caught a train to go down to Melbourne and they'd wake you up in the middle of the night when you get to Albury at the New South Wales/Victoria line, because everybody's got to get off. I was on the Spirit of (2G), their finest train, which was a pretty nice train - I had a sleeper - but at midnight or

whenever, they wake you up and you've got to transfer because of the guage. Everything had to be transferred from one train to the other. So then we get into Melbourne and I find my way down to MacArthur's headquarters and that's when I see Colonel (B% Share), the guy that really took care of me. He welcomed me. I met General (B% Aiken) and he gave me a few words, but General (B% Aiken) never wasted much time with anybody.

Farley: You were a First Lieutenant at that time or Second?

Girhard: A First Lieutenant. So they put me in Scott's Hotel, which was right in downtown Melbourne. I remember the first night I'm going out of the hotel and they have a brown-out. They called it a brown-out but it was almost like a black and so everything was dark; all the lights were off. I went out in the daytime and here it gets dark and I almost didn't find my way back to the hotel because of that. When we used to take the trams or go anywhere, you really had to ask the conductor where to get off because they had curtains on all the trams. I don't know how long they had this brown-out but it made it pretty hard to get around at night.

Farley: It must have gone on for quite a while, because I was in Auckland, New Zealand, in the fall of '42 and it was the same way down there.

Girhard: I don't remember whether it was there for most of the time we were in Melbourne or not. I reported in and, after a couple of days or so, I had to get some shots first thing, I remember and I remember MacArthur's personal physician, Colonel Morehouse or something like that, was there. He didn't have much to do, so he gave me the shots. Then Colonel (B% Share) arranged for me to go out to 225 Henry Street where they had taken over a house and set up.

Farley: That was the operation area of CB?

Girhard: Yeah. 225 (B% Domain) Road. Henry Street was the Brisbane. 225 (B% Domain) Road, which was a big cold house. It looked like a semi-mansion with high ceilings and nothing but fireplaces, and only a few of those. Absolutely no heat in the house. I'd done a little homework on Melbourne and it said it never snows in Melbourne and the climate is great. The temperature gets down to maybe 35 or 40 in the winter time.

Farley: And you were there in the beginning of winter.

Girhard: That's right. It's unbelievable how cold you used to be in the office. We had electric heaters you could stand on, but with high ceilings and no sun and the place was so damp and cold it never really got warm. I think in almost all of Melbourne central heating was practically non-existent. The hotel was the same. It's kind of like home, where in spring and fall you never had any heat. Here we were working with gloves on. Anyway, we got there and met the Aussies. The idea was to get the people there and then we'll worry about the intercept.

Farley: Were there many Aussies employed in CB?

Girhard: Yes, there were quite a few because the Aussies had just come back from the Middle East and so there was almost an all-Aussie outfit. They had Air Force and they had Army and they had one RI company that was stationed in Melbourne, so we did get a few messages that they could pick up from Melbourne in the early days. Mainline traffic, we'd pick up a little bit of it. Essentially, I'd say for six months we had practically no traffic to work on and the main thing we were working on with Major Norman Webb, a British guy. He had brought back a lot of traffic from Singapore when the British got out of there. The (B% Yo) system we worked on and did break, but they never did use it after we broke it.

Farley: Were there quite a few British officers there?

Girhard: He was the only one.

Farley: He was the only one. They came later on, I guess.

Girhard: I don't know. Did any British come later?

Farley: There were about two. I remember Crowley, who came later. Not when you were in Melbourne, I guess.

Girhard: And we had New Zealanders. We had a couple of those.

Farley: Was there a Dutchman with you then or did he come later? Dr. (C% Room). Was he Dutch?

Girhard: No, he was a civilian.

Farley: Yes, I remember him.

Girhard: Professor (C% Room). He was the civilian that they hired. It seems like he was the head of the mathematics department, Sydney University. In fact, (1-2G; possibly Beaulah) and I, when we were down there in 1961, stayed at his house. It used to be he had a beautiful home right on the ocean outside Sydney. He was a wonderful gentleman. He was a civilian.

Farley: Oh, okay. Did the Aussies have certain intelligence tasking? Were they operating against the water transport code or any of the Japanese... ?

Girhard: Well, in the early days, it was a question of what we can do. In the early days, it was almost all TA and it seems like most of the work that was done was done on the Army aircraft. We used to pick up air-to-ground traffic and used to read it. It had a daily additive. The Army air force that was in the New Guinea area. I think the responsibility area is what happened. You know the Army had their own air force and the Navy had their own air force. They had their own ships and I think the Army probably had their own ships. That's where we got into a lot of the (B% 2-4-6-8) and the water transport code.

Farley: Was that air code ABC-10? Or did that come later?

Girhard: I don't know. The air code was a daily additive is what it was. What it was called, I don't know. It was a three digit, for the most part.

Farley: ABC-10 I think was one of the designator categories. Was there any

problem, any friction at all with the Aussies? Were you the minority and...?

Girhard: You know, (1G) did it pretty well. Essentially, the Aussies had no crypt knowledge and we had no TA knowledge and so they pretty much got the TA and the intercept part and we handled all the crypt part and I think that's more or less the same way it worked out.

Farley: Oh, that was the breakdown, then. I never did understand that.

Girhard: Essentially Pappy Clark ran all the intercepts. But he was such a wonderful guy to get along with that... I think the Aussies might have had a few that might have been hard to get along with, but... Pappy Clark was the intercept man and we ran the crypt and (XG) we had a few people that we tried to train on the Aussie side.

Farley: Were most of the people who were in the Middle East pretty talented people?

Girhard: I think that was very questionable on that. (XG) Jeff Ballard was a wonderful guy, but not really with it. Dick Sanford was a nice guy, but not... But I think that Pappy Clark wanting it and the people who worked under him were the best he had available and the Air Force had Roy Booth and Guy (B% Burbish) in the early days. But I think the Air Force was kind of Johnnie-come-lately, so that... But I don't think there was any friction; it was pretty much a team effort. (XG)

Farley: Okay, Charlie, let me switch. (new audio segment here)

Farley: ... the Coral Sea and the Midway battle, or were you in the infancy, so to speak?

Girhard: I think it would be a safe bet that we made no contribution. The only thing we might... I don't know when we started working on the naval air systems, but Commander (B% Ney) was the guy who used to work on the naval air. Once we started on that, and I remember we worked out several things that we could tell when they were going to raid Port Moresby and so forth because they'd send a plane out to give the weather about 6-8 hours before they were going to raid the place. So when we found out we could predict about when they were going to raid and where they were going to raid, why then we sent an advance party up to New Guinea and I don't know when this was, but I'm sure it might probably came after, but anyway, it was when they were raiding Rabaul and the other side of the island. But I suspect that we really didn't make any contribution to the Coral Sea or the... I don't know when these guys flew down to Melbourne. Do you know when the Navy moved to Melbourne?

Farley: I do not. I do not have that - I was going to ask you.

Girhard: I do know they were in Melbourne when we were because Hugh and I, at one time, were in contact and went over to visit the boys and we got into really hot water with General (B% Aiken). He would not let us even talk to the people in Melbourne.

Farley: So you were aware that the Navy was doing the same type work that you people were doing?

Girhard: Right. I don't know whether it... But they were in Melbourne and they had to be there in the early days. Now whether they were in Melbourne before we were or not... But (B% Aiken) would not let us talk to them. I think you probably know that - when we made the big capture up in (C% Muzid), we did borrow a couple of their translators. (XG)

Farley: Okay, that's very interesting, because there seems to be a controversy here between the Navy and the Army on why they didn't talk to each other. Nobody seems to know, but this explains it - that (B% Aiken) directed...

Girhard: For some reason, we passed through to (B% Aiken) to have us get together. That was (B% Gebhard) and Epstein was the two guys that Erskine and I were talking and we said why can't we get together - we're doing the same thing. We really got chewed out and that was stopped by (B% Aiken).

Farley: When did Erskine come down to Melbourne?

Girhard: Erskine and Sinkov came at the same time. They came to Melbourne and I would be guessing that they had the information, but I would say they probably came around the 4th of July.

Farley: Yeah, 22nd of July in '42, Abe and ten more men. Do you remember who some of the talented EMs were?

Girhard: Well, Leo (B% Keppowine) I know, Dallas, Red Young, Donny Snyder, I'm sure.

Farley: Fred (1G).

Girhard: Fred Dye.

Farley: George Bailey.

Girhard: George Bailey.

Farley: Was Truax?

Girhard: Yeah, Truax was one of the early boys. Les - Les was in Melbourne. And (B% Esteff).

Farley: Bill (B% Esteff), right. How about Clem... ?

Girhard: Yeah, the guy from Baltimore. He's still around but never...

Farley: Yeah, I've written to him, Charlie, but he's never responded to any of our enquiries.

Girhard: Hemmler or something like that.

Farley: Yeah, Hemmler - Clem Hemmler, right. Just one question about the useful intelligence produced by your group or CB when you were in Melbourne. Was it too early in the game for you to really start rolling or were you just getting your feet on the ground? Was there any useful intelligence produced by your people?

Girhard: I would say very little, if any, was produced in Melbourne. You see, we had no... we were ordering our IBM equipment and we ordered all of it (XG) and we were so late in the game to get it, we said just ship it all to Brisbane. We might have made some contribution on air, but not the naval air I'm talking about - that had to come later after. We reported daily on the activities of the army air force in New Guinea and we made some... you know, so many raids, so many planes and we did have intercept a little later up in New Guinea so we possibly could have made some minor, but it was... you had to work pretty hard to keep too busy in those days because we just didn't have any traffic other than...

Farley: Where was your intercept coming from?

Girhard: Well, Melbourne - we had intercept in Melbourne and then also we got some up at (C% Dobbin) in New Guinea. I don't know. Has anybody said that?

Farley: No, I don't have anything on the RI companies - when they went out.

Girhard: How about the 126th? Did you talk to anybody from the 126th? Because you know they were set up in Brisbane and I believe they were going on a small scale in Brisbane when we came up there. This was Harold Brown's fellows. We came out of there and, as a result of that, they put in a request back home for some intercept operators and so on up in Brisbane.

Farley: Is there anything else we should talk about at Melbourne before we move to Brisbane?

Girhard: I think it was just a matter of getting a foothold in the door to...

Farley: From what I heard, though, that was the best social life these people ever had.

Girhard: We had the time and everybody treated us so well. And we did have a good group; I think we were really lucky to have somebody like Abe Sinkov, who was such a...

Farley: Was (B% Morrie) with you in Melbourne or did he come to Brisbane?

Girhard: I think (B% Morrie) came to Brisbane.

Farley: How about Joe Richards?

Girhard: Joe Richards might have been down there. I'm sure Joe was down there.

Farley: Joe was what - a corporal or a sergeant at the time?

Girhard: Something like that.

Farley: That was a while ago, Charlie. (laughs)

Girhard: Yeah. You know it's hard to... I certainly can remember (B% Teppolon) and Dallas and (B% Truex). (B% Esteff) was the one I was thinking about. (XG)

Farley: Was (B% Halpin) down there?

Girhard: No (XG)

Farley: Okay, well, let's move to...

Girhard: I don't think they sent any machine people down until we got to... I think (B% Halpot) and Frazier came to Brisbane.

Farley: Okay. You moved to Brisbane in September of '42. Was Ascot Park all ready for habitation? Could you move right in there?

Girhard: No, there was a lot of work to be done on that. It was another process.

Farley: Did you go right to 22 Henry Street then?

Girhard: Yeah. Actually, Ascot Park came later. We went to 22 Henry Street. See, Ascot Park must have been six or eight months later or so, because we just moved to 22 Henry Street and set up the machines in that part of 22 Henry Street.

Farley: Was there any adjustment necessary in your intelligence targeting or your crypt operations or did you continue pretty much what you'd been doing in Melbourne?

Girhard: I'd say we started getting a little intercept and we started having these... I don't know when the intercept started coming up because by the time we got to... Have you got... when did we break into 2-4-6-8 shipping - do you have that?

Farley: I don't have that, Charlie, no. It was mid '42, I think, but I'm not sure.

Girhard: It was certainly at 22 Henry Street. I remember that we were working at night at 22 Henry Street. At the time we got to Brisbane, we did have traffic coming in, because I know I was working on quite a few different things and we were making some progress. Certainly the first major break was the 2-4-6-8, which we got into.

Farley: Was it CB that got into that first rather than Arlington Hall?

Girhard: Well, there's an interesting story to it.

Farley: Please tell it.

Girhard: Okay. Larry Clark was one of the leaders and Joe Richards noticed something, but it was Larry Clark that really... and, of course, by the time several people got looking at it... because here what had happened is the Japanese were using an additive system and they'd used the whole book and we didn't (2G) the whole indicator and then all of a sudden they decided to work on the additives and go into the substitution tables for six days. Joe Richards noticed that they were certain groups that never had a 5 in it or something like that. You make a distribution and you see a funny distribution here on the indicator groups, so that's when they came into the substitution of these tables would have restrictions on these. So almost overnight we were right in the middle of 2-4-6-8, because we broke the indicator system, and when you break the indicator system, you could place every message and we had a fair amount of traffic at that time. Anyway, we stayed one night and broke the message and sent it back to

Washington, showing them how it worked, you know. We spelled it all out - how it worked and so forth. Three days later we get a message from Washington: We got it first. I mean, essentially they said that... I'm sure this was simultaneously, but the message read... not really patting us on the back, but just saying we got it first. The interesting this was that, regardless of what happened, if they got it first, they didn't send it to us and they knew we were working on it. We got a kick out it. I'm sure it was probably more or less a simultaneous situation. It was always good to point out.

Farley: I want to ask you in detail on that later on. Before we break for lunch, I have a question about the commanding officer there. I'm talking about Joe (B% Shear), Harold Dowd and Abe Sinkov. When you moved CB to Brisbane, who was the commanding officer?

Girhard: Joe (B% Shear), I guess (XG) He didn't really have the title. You see, Joe (B% Shear)...

Farley: Or assistant director, I guess you'd call him.

Girhard: Joe (B% Shear) was. We were in Melbourne, Joe (B% Shear) was down there in the signal office and he really didn't... he was the number one assistant to Aiken. He was the guy that handled all of our contacts, so in effect, he was the boss. But, we really didn't have a commanding officer as such, I guess. If anybody, Abe was handling it, but we really didn't... you know, it wasn't... it was such an informal arrangement because everybody did all their billeting through headquarter. Headquarters took care of all of our billeting, our per diem. Some time after we got to Melbourne, I guess we were getting big enough, and getting more people coming in, I mean in Brisbane. Col. Dowd was actually made the commanding officer and he was located physically at the...

Farley: Because I remember him when I came in.

Girhard: But he was physically located... you see all the people that dealt with Col. Shear was somebody like me or Abe. Abe knew him very well. He was a very fine man. Very competent. He was of course (B% killed) (1-2G). I don't know why he left. (XG). I heard he was...

Farley: CBI? He was going to CBI wasn't he?

Girhard: Was he going to take over CBI? But anyway, (1-2G) I didn't know what it was going (2G). He was in Brisbane actually. Col... I remember Col. Shear was still, in other words, Col. Dowd wasn't in Brisbane... I don't know when he came, Col. Dowd. I remember parties where, where we used to live and Joe Shear would be there. So he was up in Brisbane for quite a while. I don't know how long. Maybe six months or something like that. Shear, he was still working down at the headquarters (2-3G) Gen. Aiken was. Later on I think it was that Col. Dowd came and he accepted the job up... because Dowd didn't replace Shear. Shear was... all the time he was there. He was our contact guy but he was the...

Farley: OK. That clarifies it Charlie. Why don't we take a break for lunch... Charlie let's continue. It was a good lunch, I enjoyed it. We were talking about the COs of CB. Shear, Sinkov, and Dowd and all of that. Brings to mind the question: When CB was established, how come Col. Kullback or Solomon Kullback didn't come out to the Pacific since he was the chief of the Japanese section, and Abe had the Italian section? Do you have any thoughts on that?

Girhard: My guess would be that Abe was available because he really didn't have a job that was commensurate with the rank he had. Kullback (B% said) if he were to leave the head of the Japanese section back in Washington to head up the Japanese section which was just being built up in Australia, that would be a step backward. Because it was obviously a cadre operation. You know, you're still in second... the time Abe came out there, it was a very small operation. We probably intercepted 100 messages a day maybe, or something like that. I (1-2G) that was the only intercept when Abe came out in July of '43. I don't know. That's just my guess.

Farley: OK. That's a good explanation. Charlie, when CB moved to Brisbane, was there a table of organization already established? Or did you people work up a TO&E?

Girhard: Well I think we were always working on... You know, we always requested decent people. We'd always go back and say we'd like so many of this kind, so may of this. I think we ended up with a permanent request, you know, going back so that we knew all that was available. I didn't work on any of the requests. I'm sure that we were trying to get machines. We had a little trouble getting them. That's why we had them sent to Brisbane instead of Melbourne. Of course, we needed people to operate the machines because we didn't have anybody.

Farley: Do you remember the organization's structure? A branch?

Girhard: I forget what they called it. A branch, there's headquarters administered (B% cryptanalysts), photo, TA, IBM and transports, that (B% sounds) familiar. I think first... when we first set up the organization, we had a senior US representative (1-2G) (TR NOTE: Probably an acronym. Possibly “CBUS”) senior. A guy headed the Australian Air Force, and you had a guy in charge of the Australian ground forces, (B% Sanford Wilkey). He was in charge of the... I don't believe there was ever a chief at CB as such. I really don't know how.

Farley: Now was Aiken considered the director of Central Bureau?

Girhard: That's a good question. I really can't...

Farley: I never heard of it until I came back here when somebody said that he was the director and the three others, Abe and the two Aussies were assistant directors.

Girhard: I can believe that to be true because where I sat, I never really saw. I guess the only way they could keep the thing looking right is... but I never

saw a boss at Central Bureau that really acted as the boss.

Farley: Right.

Girhard: In a fact, the TA branch was headed by the Australians. The Crypt branch, the language branch, and the (B% machine) branch was always headed by an American.

Farley: OK. Well, which of these, and I'll read them all just for the record, which were headed by Americans? Now A branch was the headquarters. Was that Larry Clark?

Girhard: I'll tell you the truth, I don't know whether that's talking about A branch or whether we're talking about Col. Dowd or... Do you think we are?

Farley: Yes. Probably.

Girhard: I think originally, you'll see that really practically didn't exist, you know.

Farley: Now Crypt was B branch. Photo was D branch. TA was E branch and that was headed by an Aussie.

Girhard: Photo was Bob Holmes I think. I don't know who took over after Bob Holmes. This was a very small branch.

Farley: IBM was G branch. Was that American?

Girhard: (XG). (TR NOTE: Interviewee is very weak. Answers to questions are almost inaudible probably due to microphone positioning).

Farley: Zack Halvin? Translation was H branch. Was that Hugh? Hugh Erskine? And I branch, intelligence was...

Girhard: I don't know. We'd leave that for Johnnie come lately.

Farley: I don't know.

Girhard: I think that they... Roy Booth and Sanford were head of the respective contingents because I don't think that Sanford or Booth who really (B% were never) active other than they were head of not only the people they finally sent the Bureau, but they also were responsible for the intercept stations. You know, the (B% Wu's) and the special... the Air Force units up in (B% Darwin) (XG/fades). So that, I think, came under Sanford and Booth as well as...

Farley: Good. Charlie, I don't if this section is out in the dotted... dotted line in the box out to the left and right. Section 22, headed by Col. Albert was supposedly a jamming... a radio and radar counter measures organization. Was that an integral part of CB?

Girhard: No. That was a (B% surface problem). Col. Albert worked directly for Gen. Aiken. His operation had nothing to do with... I never visited the guy. I used to talk to Paul every now and then, but his operation was just like CB. In other words, he was at the same level as Sinkov and Dowd or whatever. He reported directly to Gen. Aiken and to Gen. Aiken alone. I think that's where Bob Holmes ended up, in branch 22.

Farley: OK. Charlie, tell me about the status of the RI companies. I read some place in the history that they were subordinate to AFPAC or USAFE. What was the relation with CB?

Girhard: If that's what you read, I wouldn't be surprised but I think that perhaps (XG). As far as an assignment, we'd get... all of the assignments came directly from us.

Farley: All the tasking.

Girhard: All the tasking actually went through Pappy Clark. E branch. The tasking... If they were assigned... like we were assigned to USAFE (TR NOTE: previous acronym is assumed. It is pronounced "U-Soff-EE") and so forth for quarters and administration and per diem, and whatever have you. I would suspect the RI companies were.

Farley: OK.

Girhard: You know, we didn't have any logistics. All of our logistics were handled by headquarters USAFE. You know, quarters, per diem. We had no supplies, the whole bit. We could pick them up but we didn't have a... operationally we had complete control of the...

Farley: Yeah. That's what I thought.

Girhard: ... Australians and the Americans, and the New Zealands and the Canadians. Actually, the Canadian outfit... We did a study one time and the Canadian was the most accurate as far as indicator groups...

Farley: Good for them.

Girhard: ... of any station we had.

Farley: Charlie do you remember the designators of the US RI companies and maybe the CO's or the Ops officers? Remember any names?

Girhard: The 126th was Howard Brown. The operations officer... I used to go out there every time I could when I had time to kind of give the boys a pep talk. (B% Naukrie) or something like that, he was an operations officer out there.

Farley: How about the 125th?

Girhard: (XG) but I don't recall any of the... What, did we have three RI companies out there?

Farley: Yes.

Girhard: What was the others?

Farley: What was it? The 111th, 115th, 125th, 126th I believe. I don't know where they were stationed.

Girhard: Any one that came out... when a new one would come out, it would be assigned up in New Guinea or up north or to the Philippines (2G). The last one or two probably came out practically as the war was ending. It was only that we got to San Miguel that we had all the intercept facilities right

there. I think we had four RI companies right at San Miguel as well as our intercept facility when we got to San Miguel were unbelievable.

Farley: Was there any processing done in the field? That is in the RI companies? Or was it just raw intercept passed back?

Girhard: Well, we did a certain amount of processing. In the TA point of view. And air, in the air. Some of the few systems we (2G) air warning, and the air raid. So we always had people co-located with the fighters and the bombers bases. Like we had one at Hollandia. We had some up at Fort (B% Moresby). We did try to keep track of their flights and give them any advanced information (1G). When we read the naval air code, we could predict when the (B% ball was coming) (1G) when Port Moresby was going to be bombed. Where they were going to be bombed. They'd send out this little reconnaissance plane and they'd give the weather. Every time we got the... about six or seven hours later, there would be a raid.

Farley: Good indicator huh?

Girhard: So anything like that. On the main line of the (B% high grade), we never, to my knowledge, had any advance... because of my work involved in...

Farley: Yeah. Charlie when you were operational in CB, did any of the intelligence targets change? Did we assume more responsibility from the Aussies than before?

Girhard: I think actually that, from a practical point of view, we had not a question of... we had all the targets, but the question is what we could do. I remember several times we'd get from Washington a message saying "concentrate on the low grade stuff, and we'll work on the high grade." The problem with the (fence) and the others in the air ground and a few of little stuff kicking around... to my knowledge, all the division down traffic which was three digit one time pads, we captured piles and piles of the pads that high. Every time we captured it, it had never been used because they used... you know hand written pads, the additives, which they made two copies, and they used the additive itself to encipher the message. If we captured it, it had never been sent. So there really wasn't much we could do on... any traffic from division down. We picked up an awful lot of it, but we never read one message on the division down. (XG) essentially a three digit one time pad. The pad itself was the worksheet (1G). We captured the pad, it wasn't used. I think we captured three or four messages that had the additives with them, but it didn't... there really wasn't a lot we could do with (2-3G), other than the air and the air ground.

Farley: Did CB work on any high command systems? Or were they readable?

Girhard: You know, that's what we spent most of our time on.

Farley: That was... Do you remember the numerical designator?

Girhard: No. We had quite a few of them around. 2-4-6-8 of course, was the main shipping system. All of them used the same one. Tokyo, all of the naval bases, army... army ships. Then each discriminant represented a

different... the real high grade discriminant was 1-2-3-4. That was held only by the highest levels. We, toward the end of the war, were able to make some progress, (B% I think just) partial. We never really did much of a dent in the highest level system. It had it's own code (1-2G).

Farley: I read some place Charlie, that CB also worked on naval air ground systems. How come we worked on the naval air ground systems?

Girhard: That's because we intercepted the traffic and we were the only ones who could provide the information to our bases up in Port Moresby, that's what Commander (B% Maid) asked.

Farley: OK.

Girhard: We found that we could. We just worked on it. I don't believe we ever really had any direction that told us what to do or what not to do. We were trying to do what we could do.

Farley: Did you have any agreement with the Navy? The Navy did not object to you reading... ?

Girhard: I don't know. I don't believe we had enough of an agreement to know what was happening. The higher level, they might have known about it. If we wanted to look at something, we didn't ask anybody, we did it. If we could provide support to McArthur, anything under McArthur's command, nobody asked any questions. Gen. Aiken would say “we can go do it.”

Farley: You said that when you were in Melbourne, you had made a couple of courtesy calls to the Navy outfit FRUMEL. Do you know what happened when the FRUMEL people moved north? Or did they move north?

Girhard: To my knowledge they never moved north. I think they stayed in Melbourne for the whole duration of the war.

Farley: Very interesting. I wonder why. I wonder if... there is probably a story there.

Girhard: (2-3G) I guess there wasn't any Navy headquarters there, and they lost (2-3G). The communication (2G). I don't think it made any difference whether they were in Melbourne or whatever, because there were no Navy headquarters, to my knowledge, in Brisbane.

Farley: Charlie, this is sort of duplication again. I keep asking you, what was the degree of readability of the various Japanese systems? Were there some that we couldn't get into at all? Or generally, did we read most of them?

Girhard: First from division down. As I told you, we almost couldn't do anything with them because of the way they operated. I think that from division up, we were able to read from time to time almost everything including they highest, that old 1-2-3-4. (1-2G) complete solution. Our first break was in the shipping code (1G). You don't have the date that, that happened. So once we got into the shipping code... we went all out in the shipping code because we were getting no where fast, not fast but on the other systems because of the difficulty that we indicated. We weren't able to do very

much with them.

Farley: Did 2-4-6-8 produce the best quality intelligence?

Girhard: In the early days of the war it did. Essentially what 2-4-6-8 did was relayed it to the other systems. Our techniques that we used with 2-4-6-8 helped us in breaking into the other systems. The other systems were very similar. We use to get into the code book and the different additives. What 2-4-6-8 did was... the big thing it did, was it sent out in advance, a schedule of all their (1G). Where they were going to be on what date. They'd send it about a month in advance. It was easy stuff. Strip the additives because it was Rabaul, October 22nd, Hollandia, October 23rd. You know, It would go all the way down from Tokyo. Where it would leave, where it would be on this date. What kind of supplies it was delivering. We essentially, other than a lot of administrative stuff (3G) was where the boats were going to be with the cargo and what dates they would be. We were reading that in time to give it before... I've been told... who knows, (2G) many, many ships were sunk as a result of... I'm sure one of the reasons they finally lost the war was they lost their shipping (2-3G).

Farley: I'm sure we contributed a lot there. Charlie while you people were working at CB, what was your relationship with Arlington Hall? I know there was exchanges, recoveries, and additives and all of that. But the question is, was there a quote “friendly competition” or was it a little stronger than friendly?

Girhard: I think it was a friendly competition. I mentioned the fact that we did it first, but I think in general we had help in breaking it. Friendly competition. I admit that I wouldn't mind using 600 people and some of their messages as a bit of incentive for the troops. Of course, we didn't like to be beaten on anything we do. But we did try hard to send our recoveries and additives and (B% work out anything). I'd say but a few times there wasn't any problems. We had an excellent relationship between Abe and Kully. If Abe ever sent Kully a message, he personally got right down in the middle of it, so there was really never any lag. Teamwork.

Farley: Was there a feeling at CB that you people were doing more with fewer people? Than the people at Arlington Hall were doing with ten times as many?

Girhard: No. I don't think so. (1-2G) about that. I think also when it got down to recovery work or the initial breaking, we had it all over them because we were developing stripping of two deep messages, and breaking the indicators before they came out. But the biggest event of the war really, in my opinion, it changed the whole picture on the Japanese... up until, I think it was, January 19, 1944, we got the biggest break of the war really up to that time. Other than some air ground and maybe a little TA, you know, activity that indicates in the messages where the troops are. Of course, we could read the address system, so we knew where the messages were going. The volume, where the various discriminants were

going. So, if they'd moved the headquarters, we could tell that. But the capture of the cryptographic equipment of the division, of a Japanese division at (B% Sio) up in New Guinea, which I think was January 19, 1944. Changed the whole complex of the war really because, at that time, Washington had... and I'm saying the mainline systems... in this particular code book, with different additive books, was used by many, many different people. Everybody used it. All, from division up, held this, so anytime Japan wants to send a message, to include the division... or even lots of times when they didn't, they used the mainline code. What happened... Do you have that date down there?

Farley: No sir.

Girhard: But anyway, that is the biggest thing because, we used to make a lot of trips over to ATIF, (B% fuel hopper) to tell them that we'd like... what we'd want, to show what a code book looked like, what an additive looked like, and we knew that they kept the code books in a foot locker about that size, so we'd brief them. After we'd over run this particular division up in New Guinea, in a fox hole, in tact was... brought back to us, was the entire cryptographic library of this division. It included the additive book, substitution squares, and the code book. It was all moldy and mildew... you felt like the (B% crud) if you'd... to do it, but when we got it out and started working on it, we realized that we could read almost anything we had on hand. Fortunately we had a machine (1G). Of course then when we translated it, that's when we (1-2G) really went into the machine, when we translated the code book. In through the (B% Remage) and we put the additives on the machine, and I'd say from there on practically to the end of the war, we were reading maybe 2000 messages a day. Up to that time, all we had been reading was the shipping. Washington had really... the code that we had, we just had enough information from Washington to really prove that what we had was it. So we then translated the (B% Ramage), sent the whole additive book by wire, the whole code book by wire. From then on, we were reading the bulk of the Japanese communications, down to the casualties, their plans, you name it.

Farley: Beautiful. Charlie let me switch these out. (TR NOTE: switches tapes).

Girhard: And fortunately, also, one of the first messages we read in this system... here we go from knowing periods and a couple of place-names and so forth in a code, to reading it in its entirety. One of the first messages we read was from (B% Sio) the place where we captured... where their lieutenant reported back to Tokyo that he personally had destroyed all of cryptographic material. That was actually right... almost in the new period. He reported that it had been destroyed, so we then had the code books, additive books... I guess we had it about four months, and we read everything we could find until they changed the substitution square. But then our additive book... but then when they changed, we were set because we had the code book. We knew the... I'd say from then on, until the end of the war we were... you know, we'd only translate one message

in fifty. You know, we'd scan all of them. We'd get these machine runs every day and they've got to be translated.

Farley: Boy what a break huh?

Girhard: Sometimes we'd get substitution squares in messages. We learned how they were sent, and how they worked. We'd even put double coverage sometimes so we could get the messages we wanted. We could strip this message to one (B% beep) lots of time to come up with the square even if we didn't... after they'd sent it to the system. That was really the big break for Washington (3G). Up to then, all we were reading was shipping. When we capture the library in this particular division, we got their division code book and a stack of additives that high. As I said, not one of them has ever been sent over the air, that we could find. They used it as a worksheet and threw it away. (2G). So we couldn't read the division down, but we could read everything from Tokyo on down. This read all over (1G). This particular code book (B% Brahma theater) in the northern part of Japan... each one of these discriminants usually had a different square. That was no problem because most of them were using the same additive book. So we read them. Reading only 2-4-6-8, we were... from then on... McArthur wasn't nearly as interested in the shipping as he was in the... how the (B% Malari) is and where the troops are. You know (B% Malari) was a problem and it was fixed. (B% Supply) problems, you know, anything that came up. We were (B% regionists) you know. I'd say it must have been the (1-2G) 2000 messages a day. I don't know how many...

Farley: I remember peeling page after page of those messages.

Girhard: Well, Vince Haggertt, what he did... He'd take care of the messages that didn't break out for us. (XG), he'd straighten them out, and we could send them back to be reprocessed or have them done by hand. So we got the... everything was clear on the machine. Of course we'd checked the indicators before we sent them in because they usually had a broke page, page sum check or something like that. We processed the indicator, and that would go (B% direct) to the machine... punch the message, and punch the additives up, and pull out the additives and correlate it with the cipher text, the apply the additives to the decode (B% deck)... correlate it with that and come up with the vertical print out. Zack Halpin was... we had an excellent (B% machine) relationship with machines because... All of these to us, were (B% just) procedures. (XG) couple of thousand of these a day or how many we had because... as I say we read almost everything we got in the high level except for the 1-2-3-4 which was a small volume.

Farley: Charlie was that capture before or after the one where you had the burned additive books?

Girhard: The burned additive books happened later. We had read in one of these messages and we decoded (2G) place up past (1G) Hollandia where a ship had sunk in 60 feet of water or something like that. The ship had

burned twelve hours before it went down. So after we'd taken that part, Gen. Aiken managed to... somebody (1G) make a diving expedition to the ship and we actually picked up the... again the same cryptographic box, (B% foot locker) that we had, completely charred. Hugh and I went up to New Guinea to take a look at it. We saw that it was obviously charred, but hadn't really burned because the lid was closed, it hadn't really burned. It was just completely charred. When we brought it back, we found that we could read almost the entire additive (1-2G) code book list. We had the code book (2-3G) it really didn't (B% count). Here we had another additive book that we were in the process of recovering. We found by putting a little alcohol on it, (B% we had everybody replaced), so we were able to recover about 98% of it. Because (1G) the lid on the thing and shut it. It must have been baked you know. When you first looked at it, it was hopeless, but it really worked out pretty well.

Farley: That's great. Charlie we were talking about the relationship with Arlington Hall. Was the presence of a liaison officer from Arlington Hall a help or a hindrance? And I'm talking about (B% Slip Sweers) first, and then Jim...

Girhard: Well, I don't really think it was of any particular help or a hindrance. They were very cooperative but, really we didn't... I'd say... If I wanted... I think the only problem we had, it came through when we didn't get an (B% answer) because we sent it back without anybody's name on it, and it fell through the cracks.

Farley: Jim (B% Fulled) suggested that CB should have had the liaison officer at Arlington Hall. How come CB didn't have such a person?

Girhard: Well, I guess we just probably never really saw a need for it. (2G) send it to somebody, if we had Kullback and Smith or whoever was back there to take care of it. I don't recall (1G) asking Jim and Slip to do anything specifically. It wasn't because they would have been tired of doing it. We just didn't have to do it.

Farley: Charlie, controversial question. The SSOs. Was there any official directive stating that these SSOs were persona non grata in CB? Or did Aiken or somebody else...

Girhard: I don't know the answer, but knowing Aiken, I had the feeling that... I never saw one inside the building.

Farley: I know McArthur didn't want any SSOs there, but...

Girhard: I don't know what level it was, but I never saw them out our way. Aiken wouldn't even let Q2 people out there. I didn't see any Q2 people out. Now whether Aiken spoke with Willoughby or not, I don't know. But all I know is that Aiken wanted to be sure that every important message that we sent in went to Gen. McArthur. So we had somebody that did nothing but take the hot messages everyday and send a folder to Aiken, and Aiken would personally carry it up to McArthur.

Farley: Tell me about that. Can you expand that? Was it channelled to McArthur

through Aiken to Willoughby to McArthur, or Aiken to McArthur?

Girhard: These specials went Aiken to McArthur because these messages... the few times I actually signed it, I should have kept. That had my initials on it. And it would have SBA on it. It would have MAC on it. Then they would come back. In other words, these messages came back. Aiken wanted to be sure that he got them first... that McArthur saw these, and that McArthur knew what the source was. I don't believe he would even let any Willoughby (2-3G). I think eventually they got copies of everything that (1G) wanted. Certainly the relationship didn't look too close between Willoughby and Aiken from where I sat. You've got to believe that this is the way that Gen. McArthur wanted it. He saw what was happening. You would think that this would be a G2 responsibility. But for the same reason we couldn't talk to the Navy, for whatever reason... This is the way the intelligence was handled. You know, that was one of the top priority jobs from Bill or Herb, to take those down.

Farley: Charlie, what type of finished intelligence was produced by CB? Were there daily reports, periodic summaries, or translations?

Girhard: I'll tell you the truth. In the beginning, (XG) division reports. I think maybe later on they started maybe putting some of it together. I don't believe we ever really did particularly a good job with the...

Farley: Did we have daily summaries? or were there...

Girhard: Later on we did.

Farley: Did we ever do any personal briefings? In other words, did you go down and brief Aiken or McArthur? Or did Abe do that?

Girhard: Not to my knowledge. It's possible that Abe might have been down. But Abe really didn't.. I think that... I say possibly... I'm sure we did some of it because we did have outfit that would go back and dig and come out with a report. I assume there must have been some requests come back from G3. (XG) relationship. But that came on later, but I'm sure its an area you could have done a lot of (1-2G) because we had so many messages (XG). Of course we had such hugh volumes. It wasn't a question... once we went through one day... we only had a limited number of transmitters. Of the ones we had... at least from my experience, (B% Otto) was about the only one that you could really get to when you really wanted help on the context of the message, you know what the Japanese planned to do.

Farley: Charlie, did the Aussies have a separate intelligence product series, or was CB product their product as well?

Girhard: I think, to my knowledge, it was just one product series. (1-2G) now whether they could have made it like... what we did for Gen. Aiken was obviously special. (XG). (TR NOTE: Two sentences too weak to understand)... anything from CB because you know, anybody that asked, I think could have gotten it. It was possible... (XG/speaker coughs) what went out of our outfit depended on whether it came out of Clarke's

section... you know, it was all pretty much a team operation. I suppose that in the process... you know, like if we wanted to send something back to Washington, and we wanted to send it to an RI company, we'd do it. If they wanted to send it to... I'm sure they'd send it to the Air Force, the extra copies. It was up to Sanford or (B% Pultzer)... Abe, I'd hate to say, if somebody wanted copies of it... now whether that was done, I really don't know. I suspect that... I'm sure the Aussies sent a lot to their parent organizations. They've got to... If they wanted to get troops and all, they need to...

Farley: Was there any Australian eyes only material, or American eyes only material? During that period?

Girhard: None to my knowledge. It was familiar... If it's true, I never run into it. We had some Aussies working with us but, in a sense the crypt operation was pretty much... Abe was there, and then Larry went up front, I did pretty much whatever I wanted to do. I'd get this done. I never really asked anybody to get into the product. We were more concerned with product. We weren't really concerned with passing technical information, or sending technical messages. I think that translations went through... they set up (B% Grodins) and whatever shop that was. They had to type it. Keep track of it. The translators just translated it. I assume that later on they started making a few studies of the type you are talking about. But there sure weren't very many. Did you see any down there?

Farley: No I did not. Charlie, I think you might have answered this. To what headquarters were the Aussie wireless units responsible?

Girhard: They had their own manpower and administrative. They were responsible to (1-2G). There was an Australian Air Force base there... I remember going over to the club sometime. It was across from the park. If you go across the park. I think they took care of the administrative parts. The Australian Army was the same way. They had their... but I think, operationally... their intercept was controlled by CB.

Farley: CB. OK good. OK Charlie. One question here. I have a list. Maybe you will know others. Discuss outstanding examples of CB support to the military in critical situations. You talked about Rabaul. And you talked about the air activity, and the six hour weather surveillance before. Can you think of any others in which CB contributed much useful intelligence?

Girhard: Other than the thing on the air side. (TR NOTE: long pause) I doubt if there's too many other examples other than the air side. Of course, I mentioned the strategic type in the case of the shipping.

Farley: I have one here. Information on the Japs on Aitape and Wewak in the spring of '44. Do you remember anything on that?

Girhard: Well, in the spring of '44, we would tell them everything. Then you'd know how many troops they had, how many were sick, how many (XB/blocked by interviewer).

Farley: This was after the capture?

Girhard: Right.

Farley: Then Rabaul activities in the spring of '44... The move of the southern Army from Manila to Saigon...

Girhard: I'm sure that was all documented in the... when we were reading all the mainline stuff. Anything after April... and January 19th... I believe today that it was 1944. Anything after that, we were... it's hard to believe with all these messages we were reading, we wouldn't...

Farley: Bougainville. Second major attack in March '44. Lots of OB information. But here's one I... I don't know anything about this. It's sort of sensitive. POW reports, and there was an interrogation of a US, and I think it was an Aircorps Colonel, who told all regarding unit locations, US capabilities, strengths, invasion plans. Do you remember anything about that?

Girhard: We had several messages that we read. They had an intelligence unit up in the north. They were reading the Air Force codes all the time. We'd report that back to... you know, they had our guy. (B% We'd get) the Sergeant or somebody who was getting a medal of merit for reading the Air Force codes. It wasn't the... it was more of the base to base stuff. It wasn't high level (1G). He was reading the air to ground and the base to base and when they'd raid (B% even). That kind of thing. We'd report that in. A month later, we'd get another report, they were still reading it. There's a lot of messages sent but we got this reading... we got a few intelligence... but their intelligence effort in general, I think was almost new. I was not much. They were reading, I think, essentially the same type of stuff that we were. (B% Made mirror gram) codes. It was not high enough stuff, but they kept reporting. Maybe that Air Force would change, and he'd still give into them.

Farley: He was captured by the Japs and they were working him over I guess.

Girhard: No. Well not this... I don't know about a prisoner. This was just a... on the Air Force I talking about is... we just read about it in messages. To my knowledge, I don't ever recall reading about a POW that was...

Farley: Did you ever hear anything about any atrocities? Did the Japs... any report, and was there a way they could disguise information about atrocities or any killing of the “Flips” or killing of any of the other peoples out there?

Girhard: I never heard about it. I never heard Hugh mention it. That's a subject I never heard any...

Farley: Do you remember (B% Yamashita's) trial in Manila?

Girhard: Yeah.

Farley: And somebody asked me this question... whether there was any SIGINT related to atrocities that might have been of use in that trial. Would you know anything about that.

Girhard: It's hard to believe that in a stack of messages that we read, we couldn't find something. You see, the bulk of this stuff never got transmitted. The volume was... well, you saw how much use to come out in prod every day.

Farley: Did we have somebody scanning and sorting out the items they though would be most useful.

Girhard: Otto and Hugh did almost all of it. I never... you know, we captured so few prisoners, well we captured a few...

Farley: Did we find any old code clerks? Japanese code clerks or any SIGINTers and COMINTers?

Girhard: Well, we had them alerted for it. Essentially, there wasn't really many collections we wanted. We needed code books and additives. We knew how their systems worked. It was a... I know (XG) wanted to get people out of ATIS which was (XG). We used to go out and tell them what we wanted. We told them to look for a code clerk and that type of thing. They would say the few that they got (B% bought) down there... the best way to get them to talk was to take a camera and say you'll send this picture home.

Farley: Is that right? Great.

Girhard: But we knew, even in the early days, that what we needed was code books and additives. You know, we might have had some questions about at what level they hold things but, after we captured the library of the division in (B% Sio), we knew what every division had. We would have broke down the whole... you know, these discriminants even using different code. A lot of these discriminants (1G) (B% fall) east or north or where it falls out you know that they had an area command. 1-2-3-4 only went to the three or four different places. In other words, it was almost like a system. (B% Throw the) EPL away (1-2G) maybe the Alaskan commands. That's the only place it went. What might have been in those messages, other than the few we had (1G) about, was we would read that... so often we'd get a message going to everybody. If you sent it to anybody besides the command... because occasionally we've had a few duplicates... we'd pick up a lot of code groups in the other system because we had a duplicate. The bulk of the traffic that we got other than 1-2-3-4 we could read with the one... .(XG/ fades). You just used a different substitution square. That was the least of our problems. I know if we had the additives, we could recover the substitutions, whatever they were using.

Farley: Charlie, how much of a benefit was it, in the early days, when a Japanese unit was cut off, and the home islands had to communicate with this installation way down someplace, and they were not being supplied with the latest in cryptographic material? How useful was that to the cryppies?

Girhard: Well, they told us how they were going to take this code book and additives and do this and do this, so we knew everything to do that they

did, so we'd just get it and... that was pretty straight forward because we read the same... (B% We're) certain these links, the important links, where they were getting instructions, we arranged to get double cover on them. And we'd get it. Not only get one copy of an (B% LCG), we'd get two or three. They'd put their best operators on these circuits. They sent the cryptographic instructions. They sent the square. So all we had to do was read what they were going to do, and sure enough, that's what they did. After January, it was pretty much... you know, you had to keep your eye... We'd still get some recoveries from time to time.

Farley: Did you direct any effort to other systems that you hadn't recovered up to that time? Or was it... you had a personnel problem of more benefit to process what you had in the high level system?

Girhard: Well, we really couldn't do anything with the lower grade systems if we wanted to. What can you do with them. You've got to have ideas. Maybe (B% if) we punched all the messages up and look for hits. All the evidence point to the fact that it's been used. You don't capture the pad until they use one. All of the pads that we captured were manually prepared with a carbon. In other words all they did was just by hand. You know, take the (B% carb), one to feed the carbon, and the other (2G) the thing down at the division level, and just pass it down to the regiments I guess. Usually there's a worksheet to encipher it, and if its used, its only used once and its manual. So the keys might be a little rough. I don't what we could have done.

Farley: OK, that's good. Charlie, what influence or what guidance did Gen. Aiken provide to the operations element within CB?

Girhard: Well, I would say... certainly if we wanted anything, he got it for us. We had... you know, if we wanted to get (1-2G), he arranged for going down to the ship and picking up the code book. Anything we wanted to do administratively, he was (1-2G). He used an airplane to fly us up to San Miguel. If we needed any logistics, if we needed people from back home, you know, the request for personnel. In other words, anything logistic... I think his idea was to get any intelligence that we could get for him. I think that he certainly didn't do anything to prevent us from doing our mission. He was... even (B% grew) heaven and earth, particular after we got to Brisbane and started sending in the shipping messages. We never had any logistics problems. If it hadn't been for him, we would have had all kinds of troubles. In Brisbane and in Melbourne our logistics was always... then you factor in all the per diem, bandwagon... Went the same way with supplies, radios, machinery... .He was a tiger. He got things done.

Farley: Very good. You mentioned the relationship with ATIC. Did we have a liaison with the people at the allied translators and interrogators or interpreters group?

Girhard: ATIS I'm thinking.

Farley: Yeah. Service isn't it? Service or section... whatever they called it.

Girhard: Section. Allied Translator. Sydney (B% Mashbur) was in charge.

Farley: Yeah. That's right.

Girhard: Erskine knew Sydney. We kept in touch once every couple of months. They'd send people up to the front line units. Any time they would send anybody up to the front line units... translators who would go along with the troops, particularly when they'd capture something and that type of thing... he'd always arrange for us to brief who had just gone up front. Things he wanted would get a top priority. (1-2G) one of their boys actually picked up the cryptographic... they picked it up, brought it down to (B% NDU Tulane) and called us. We drove over and picked it up. It did pay off on occasion. It was an informal arrangement. No... I don't know how it even happened to start. Probably happened because Hugh knew Sydney.

Farley: Could be. Could be.

Girhard: You know, we just made a point of contacting them every now and then.

Farley: Did all of those people have clearances too? Or did we worry about things like that?

Girhard: I don't think we worried too much about clearances. I know if it was late in the war, but they sent a message out that they didn't have any clearance for me and Erskine and Sinkov. No record of clearance. See, when I reported to Washington, they never cleared me as a 2nd Lt. I don't think any of the people that went in early were ever cleared. I think the clearances started later. It had to be late in the war when they listed everybody in the old timers... nobody had any clearance record. I think the record, so they cleared the... as of such and such a date, you were probably cleared because you didn't get unless you're cleared, but if you're on board...

Farley: Just sort of grandfathered everybody in that they could.

Girhard: I think... I recall that even we couldn't get all the people we wanted, particularly after this January 19th thing, we needed some more people. We just made arrangements (2-3G), you could pick up some boys. So we picked up... we didn't check clearance or anything. We just recruited them. We made arrangements to get first crack at anybody going through the...

Farley: Charlie, I'm trying to recall. What sort of an entry vehicle did we have to get into Ascot park. Did we have a badge?

Girhard: We had a badge.

Farley: Was it a badge. Was it a picture badge? I don't think so. Because I remember somebody saying...

Girhard: I think it was probably more of a button wasn't it?

Farley: Probably more of a button. Because I remember somebody telling the story about putting Hirohito's picture on a badge. That's fabrication if I ever heard of it.

Girhard: We never had a picture to my knowledge. In the early days, we didn't even do that (XG).

Farley: The codeword Ultra. Was that in use in CB?

Girhard: It sounds like it probably was. (XG/very weak).

Farley: The only time I ever saw that word was on the outside of a box when we were flying up to the Philippines. It was on a box being loaded on board. Somebody said Ut oh, that shouldn't be on there and they scratched it off.

Girhard: I think they changed these codewords. We had them and we knew what they were. They didn't change them very often. Then they started changing them. Ultra sounds (1G).

Farley: But there were codewords on some of the intelligence documents?

Girhard: Yeah.

Farley: OK.

Girhard: I think so. We didn't really pay a lot of attention.

Farley: Was there a codeword assigned to Top Secret and Secret? I mean different codewords.

Girhard: I think the codeword was assigned to COMINT.

Farley: OK. Not like Secret SPOKE and whatever came later on, Top Secret Ultra.

Girhard: I don't think we even had a separate codeword for the TA vs. (1G), you know essentially, that's what it came out to. The codeword for TA information was a codeword...

Farley: Very good. Charlie, when we moved the advanced echelon up to Hollandia or established one up there, what was the division effort between Australia and Hollandia?

Girhard: Well, I think they were doing the tactical stuff, and ultimately they were doing some decrypting there I think. (XG/weak). I guess maybe they read some messages that were related to... because you have to verify the (1-2G) up there. So we probably did some strategic stuff up there as well as...

Farley: Did they do full processing? Or did they send anything back to Australia?

Girhard: I think they did some (1-2G) processing. I'm not sure. I don't even know how many people we had up there. Do you know?

Farley: We had a lot of WACs. We had a couple hundred people up there. WACs, Cece Corry, and John Thomas, and Ed Chapman were up there. In fact they stopped there on the way to Brisbane. Do you remember that?

Girhard: So Cece Corry would be the man to talk to on that.

Farley: OK, I'll talk to Cece.

Girhard: We must have read some messages up there.

Farley: Yes, I think we did.

Girhard: By that time, we was (SIC) probably reading that (B% Weewac)... that stuff where they shuffle the code all over the place you know. You know where they took the additive book and added pages or did something.

Farley: How did we communicate with the RI units and advanced echelon?

Girhard: We did it through our COMSAT.

Farley: Did we have a separate channel or radio circuits direct?

Girhard: Well, I think we had... I think actually, in that case, we used the Aussies to go through the Aussie channel two. Or to go through the main... we didn't have any radio set (1-2G)...

Farley: That's what I was asking, yes.

Girhard: I've heard offhand, even while I was (1G) overhead. They said that 80% of all the traffic between McArthur's headquarters and Washington was our stuff. We went through headquarters, McArthur's headquarters communications (2G). We sent everything to them. They sent it on radio either to the RI... I suspect with the Aussies, we went through the Australian headquarters. They communicated with their own units, and others. There's a (B% wireless)... The Air Force had went one way, through the Australian Air Force and ground forces went through the Australian ground force. We had no circuits ourselves. We'd be on line but you'd go to...

Farley: OK.

Girhard: ... I'm sure that the way it was. The volume of traffic... you know there was a while there that we sent all of our messages back. All the (B% regular) messages we'd send back as well. We sent the whole code book, the whole additive book, plus we'd send all the messages back in a readable system. That's why we had to build up our communications (XG).

Farley: How come they didn't send it back by courier I wonder? It would have taken too long by courier.

Girhard: Well, we did originally. But, when we were reading the messages... we couldn't do the job we had hoped to. We just sent them by... If the discriminants are readable... After January 19th, the (B% ball) didn't change so they wanted all those messages. So if we missed it, they could... because they had a bunch more people back there. Anything they wanted to send back, we'd... but this is...

Farley: Did the Hall read the bulk of the messages then, later on?

Girhard: Sure.

Farley: They did. Good. But most of them were pretty out dated, I suppose, by the time they did get published.

Girhard: Not the ones we sent by wire because they'd get them the same time we did practically. We'd arrange for certain messages to be sent by wire back

to F2... (2G) from the station if we were reading it. Anything Washington asked for, they got. Our comms center at the end was pretty good sized. I don't what the size of it was. I don't know if you've talked to anybody from that center but...

Farley: All I know is Jim Thompson was in the... is the only one I really knew.

Girhard: Small...

Farley: Oh, was Al Small in there... Not Al Small.

Girhard: You know who I mean.

Farley: Yeah, the other one.

Girhard: He was a funny guy.

Farley: Yeah. I remember him but I can't think of his first name.

Girhard: We sent... If it was readable, we'd send it back. We'd send all of our additive recoveries. As I say, we sent the whole code book, the whole additive book. We did that. They had it almost as fast as we did. It didn't take long to send.

Farley: Charlie, did the field units intercept anything other than Japanese communications? I'm talking about the Chinese “yak” net and the “barracuda” water transport net. Are you familiar with either of those?

Girhard: No. (1-2G).

Farley: I've heard of this Chinese “yak” net, but I don't remember what was on it.

Girhard: Not to my knowledge. But again, I don't know whether... you know its possible in a TA point of view, anything that provided information... If it were linguistic equipped, it would come through us.

Farley: Was there any plain language at all? Any plain language Japanese that our people were involved in intercepting? Either at the RI companies or other elements?

Girhard: You see actually, the Japanese weren't geared to send plain language. But, in effect, I guess there were a few, but any plain language Japanese was done in a Chinese telegraph code. So we did get a few in the Chinese telegraph code. That really is their plain language because they had no way of enciphering characters. The Ramage was just something that we developed to use, and the diplomatic people had used the cipher machines. The only way the Japanese had themselves, of sending plaintext, was using the Chinese telegraph. In other words, you couldn't send Japanese because they had no... the Army had no Ramage. The only way they could send plaintext was the Chinese telegraph. We did get some. So that, in effect, was some plain language. Occasionally we'd see messages in plain language. But even in the codes they sent every now and then to clarify something, they'd have to go to the Chinese telegraph code. That meant they had a special group. (2G) look up the Chinese telegraph code, then they'd send a couple of characters. So they'd spell

out specifically what characters they meant if the code book didn't take care of it. But the Chinese telegraph code was their plain language. They did occasionally send a message in the Chinese telegraph code.

Farley: Charlie, in September of '44, Lt. Stu Johnson and three or five enlisted men were sent on TDY with the 3rd and the 5th fleets to read ABC-10 intercept. They stayed until April of '45. Do you know how successful they were and how useful the intelligence they produced was to the commanders?

Girhard: No. I didn't talk to them after they came back. I would think it would be just more of the early warning and telling where the planes are. You know, because we could read how many planes were up. Even if you couldn't read the codes, you knew by the suffixes, how many messages were flying and where they were flying and that type of thing.

Farley: Let me switch tapes please sir.

Girhard: (TR NOTE: Beginning of tape very distorted. It appears that it picks up in the middle of Mr. Girhard's conversation). (XG) Commander (B% Nave) had at the naval (B% lab). The air to ground... the army, if it is AD-10 is the army system, was handled by Pappy Clark. That was more of a TA problem than... It was never worked into crypt part. It was worked in the TA part with the naval... he had a one track mind. Everything he was doing was so important. He didn't talk too much about it.

Farley: Charlie, we haven't mentioned SIS Hawaii or SIS CBI. What was the relationship between CB and 1st Hawaii?

Girhard: Well, to my knowledge, I don't believe I ever saw a message.

Farley: At one time there were two analyst who joined us from Hawaii. One was Brewer Merriman. Remember Merriman? I think he went to State Department when he got out of the service. I can't remember the other person's name. I remember having him sit beside me.

Girhard: We had a big intercept station in Hawaii all during the war, I know that.

Farley: Did we work on the same problems? Or did we have any reason to support each other? Or exchange information?

Girhard: I don't believe they really did anything significant there. (XG/weak). I never saw a message between the two. They must have been out of the station five in Hawaii. We never got the traffic from station five either. We just (2G) their own traffic. (XG) I think it was five in Hawaii. And CBI, I never saw any communication. I remember reading a few things from five.

Farley: Were they working on Japanese systems too?

Girhard: We didn't inter-communicate any as far as... We had quite a few fellows out there (B% but they didn't) talk to anybody.

Farley: I talked to Don Snow and...

Girhard: Was Bill (B% Litwenny) out there?

Farley: ... And Bill (B% Litwenny). I talked with him, yes.

Girhard: What did he say?

Farley: They were working on low level Japanese systems. But I was just wondering from your point of view whether you had any association with...

Girhard: I don't believe we ever had any messages. Were they reading low level stuff out there? Do you know what kind?

Farley: I don't remember Charlie.

Girhard: That was a different theater you know, and different discriminants that you could field. We were reading a lot of the stuff because... We didn't pick up much traffic up to Manchuria, and out over at Singapore and that way. We didn't...

Farley: They were supporting the Chinese too I guess in some respect.

Girhard: When we got down to the end of the war, we had 10 RI companies. We were picking up a lot of traffic. By the time '44 came along, we were picking up a lot of traffic. Three RI... there was a Canadian one, (XG), three or four wireless units, and three or four Army units. Then the operators were getting pretty good, you know. There wasn't a rotation, they were getting pretty good toward the end of the war.

Farley: Charlie, is there anything else in Brisbane that we should talk about before we move to Luzon? Anything you'd like on tape?

Girhard: We were there is Brisbane a long time.

Farley: Yeah, mid 1945.

Girhard: When did we leave, August?

Farley: July of '45 was the first air shipment.

Girhard: July of '45. So we were there almost...

Farley: You were there almost three years. Charlie, there's one thing that puzzles me in reading some of the history. It says, and I'll ask it this way... Why was the move of CB North not previously discussed with the SSA at Arlington Hall? Per direction of Director of CB? In other words, Gen. Aiken told somebody, “Don't mention to Washington that CB is going to move north.” Or “Don't give any dates.” Were you familiar with this at all?

Girhard: No, but I can believe it.

Farley: Why would he do that.

Girhard: I just explained some of the things I've seen. I mean, why would he not even talk to Gen. Willoughby? Why would he want us not to talk to the Navy? The technical exchange, you know? Clearly, we have to get a lot more information to get hit. (1G) McArthur run a funny operation. All of us had to be with his full approval. He's got a G2 and he's got somebody else coming around the corner, giving him the... Everybody that they sent out to Washington, he wouldn't use.

Farley: He relied on his old friends I guess.

Girhard: His old buddies. I can believe it, but I didn't know that to be true. I'm sure Aiken never discussed...

Farley: This is from a report from Jim Fuld who said that, and he put in quotes "per direction of the Director of CB, this is not to be discussed." But this was post facto, that he told Arlington Hall about it.

Girhard: Aiken was the director of CB. I can believe that because...

Farley: He ran it like he was director too. Charlie, was there much preparation in getting ready to move out of Brisbane to Luzon? Do you remember when you were told to get ready to move out?

Girhard: Yeah. That was a person that made an awful lot of waves (B% from a machine) really. (XG/weak). We worked two echelons. We'd leave half the equipment and people so that we'd still have an operation there. At this date, everything would go there... where ever we'd go. We tried to... a lot of it really didn't affect us other than we'd call the shots of what to be done. The machine people had a problem. Pappy Clark (2G). When we moved an RI company, we moved a whole RI company, and it was out for a month because it went by (1-2G). So we had it arranged for somebody else to cover what... So Clark had a pretty good sized job to do. From our side, other than planning, we weren't affected that much, other than files and a few things like that. You know... which files to take with us, but we kind of duplicated the important things...

Farley: Is that the way you did it? You duplicated files so that the people who moved north could... ?

Girhard: In effect, like the (1-2G) most of the code books... additive books... cryptographic material. Most of this was with a machine run.

Farley: Was there any loss of continuity at all on Jap systems during that move? I know you flew up four C-54s, and then there was shipborne movement later on... or maybe they left earlier, I don't remember.

Girhard: On the shipborne movement, I think (1-2) a lot of the heavy equipment. I think when we moved RI companies, that's the way we did it. I think that they were for an RI company. The important things we covered. You can't have half of your people out of operations and do what you did before.

Farley: I know I was off loaded out of a C54 onto a C47. Just the pilot, the co-pilot, myself and a whole plane full of equipment. Maybe that was some of the IBM machines, I don't know. But it was part of the move of CB north to Nichols Field, and we touched down there... a day later I think.

Girhard: You know, the files cabinets and that type of thing... Any IBM equipment, which we... you know we couldn't get along without the IBM equipment because they were doing all the decoding.

Farley: I didn't realize this, but there probably was not much loss of continuity, since we had the code books and the additive pages and all of that. So it

was just sort of...

Girhard: We had the translators (2-3G). I couldn't translate as many. But the machines... we didn't...

Farley: Was the CB strength decimated because of the inability of some of the Aussies to move north with us? Or did we need the Aussies to come with us?

Girhard: Well, an awful lot of the Aussies came, you know.

Farley: But they didn't bring any of their WRENs or the females because they couldn't leave country I guess.

Girhard: No, but I think there weren't that many around.

Farley: But did quite a few of the Aussies come up?

Girhard: Yeah. Quite a few. I think all of those in the service, other than the gals, came up. They didn't have a lot of gals in the service. Almost none of them were in key jobs. For the most part clerical. They never gave the girls much to break. They didn't have an officer in the whole bunch did they?

Farley: No. I don't believe so. One thing I haven't mentioned is the WACs. The WACs joined us... in fact they came over with us in the Spring of 1944 and joined us in Brisbane. Did most of those girls do a pretty decent job?

Girhard: I think they did a pretty good job. I don't think we had but very few problems. Maybe a few in the Philippines where there were such a shortage of... I'm sure their selection of the gals was not nearly the criteria that they used to demand. They were all good workers... not all of them, but we never really had any problems that I can recall. Of course we used a lot of them as punch operators and things like that. Which I think, girls in general, do better than men.

Farley: Well, that's pretty tedious work.

Girhard: We had few smart (B% lips). But, in general... the men were outstanding.

Farley: That's one thing I overlooked. The company. Now when you came over, you were a part of the 837th Signals Service Detachment. Now what was the designation of the element at the Ascot Race Course? Was that 837th? Or did 837th die? Did it become SIS? Do you remember the transition there?

Girhard: I don't know whether it ever changed.

Farley: But the first CO of the company was Chet Ray?

Girhard: Yeah, then Bill Wolf.

Farley: Then Bill Wolf came later.

Girhard: I guess they only set up the CO once they got a few troops and they were living out of Ascot. I guess when Bill Wolf came over... Was he CO when he came over or what?

Farley: No. He was the leader of R group who came over in the Spring of '44. But

he almost immediately became CO.

Girhard: I guess that's because Chet didn't want to do it anyway. But he had to do it. I don't know how many... even when we only had 50 troops or whatever you had, we all of the sudden, we had what 125 or something like that?

Farley: Bill I think was a 1lt and probably next in line for that.

Girhard: I think he liked that job (B% immediately).

Farley: He was a jock.

Girhard: Couldn't cut the mustard on the other side.

Farley: I think I can probably answer this myself but, was there any change in targeting? Or what systems were we reading when we went into operation in (B% Miguel)? Did we have any effort at all other than processing Japanese traffic?

Girhard: I don't think so. I think we really called our own shots as far as the targeting and that type of thing. We just had to take targets of opportunity you know. Anything military... and saved a spot in lower level we couldn't do anything with. Air ground, we did as much as we could. My group didn't really work on it, but between Cdr (B% Nave) and Pappy Clark... that was a top priority. Three digit systems that we got all of the time... we made a few token efforts but we never really... we never even punched up the material. I think that the targeting was kind of... if we could read it, we'd read it, and if we couldn't read it, there wasn't a lot we could do.

Farley: 125th RI company was in Leyte at that time. I don't know where the 126th was. But were they still operating at full strength and full effort in intercepting as much Japanese communications as they could?

Girhard: You mean where?

Farley: From Leyte. When they were in Leyte.

Girhard: That's where (XG).

Farley: There was no diminuation?

Girhard: No one was better at it. If we thought they could pick up stuff in the Philippines, they couldn't pick up further south. The further north they got, the better. Of course there was a lot of Japanese bases that had been eliminated too. But we were picking up stuff from northern Japan that we didn't... You see, we were picking up anything we could pick up. We, of course, were concentrating on areas that McArthur was responsible for, but if we got further up, if we could read the traffic...

Farley: So there was no deliberate decrease in effort?

Girhard: No. Not (XG/weak).

Farley: This should be...

Girhard: The war didn't last very long once we got up there.

Farley: That's what I was going to say. This was the fall of 1945.

Girhard: One thing I noticed that was interesting, when they did call a halt to the war, the Japanese kept sending messages in their code, and they'd send it in clear code. It was Chinese code that they'd send. Here is all these things that had been enciphered come out in the shipping code. So we kept on reading them.

Farley: They probably thought "What the devil".

Girhard: (B% Anyway) they stopped the encipherment, that they didn't usually see. But I guess that's a... the CPP was a hard way (2-3G). CPC, you had to send it character by character. There are no whole words in this kind of trigraph code. But if you are sending a military message, with a military code of 1000 groups (XG) and everything like that. (TR NOTE: Two sentences missed due to very poor readability. Mr. Girhard's voice continues to be very weak.)

Farley: Charlie, about this time there was call an operation Rabaul. Now the reason we're interested in this is because an Australian film company is trying to make a movie on this operation Rabaul. As far as we can determine, it concerned a group of Australians and Americans, frog men type, who were dropped up in Tokyo harbor or around that area, to go down and blow up as many Japanese ships that were in harbor. The Japanese heard about this and captured them all, and supposedly killed them all. The Australians are trying to find out whether there's any information in COMINT, O COMINT referencing Japanese communicating about this operation. Do you ever remember seeing anything like that?

Girhard: I never even read anything. I never heard of it.

Farley: It's a little early here, but it was supposedly after the armistice was signed. If something like that happened, there's a good war crimes case here. But they executed these people after the Japanese had surrendered. Do you remember any clandestine networks or anything that would indicate that the Japanese had captured these people? Remember any sensitive operations at all that we were reading about in Japanese comms?

Girhard: (2-3) I saw was what I told you about the Air Force reading the... I sort of got the impression the Japanese had a third rate COMINT effort going everywhere. You know they had a little intercept going, and maybe a little TA. I even (1-2G) this operation was about four of five persons. I don't... I can't believe it happened after the armistice without making a (B% case) of it then. The Japanese, once they surrendered, as far as I'm concerned, never seemed to anything that wasn't (B% Cricket) did they?

Farley: No. Charlie, I remember sitting in a briefing by uncle Abraham about the upcoming assault on Japan. It talked about operation Coronet, operation Olympic. Do you remember that period, and what preparations CB was making in the event we had to go into the home island?

Girhard: You say it was Abe that had been briefed on it, had he?

Farley: Apparently so. He came back and briefed the officers at... and this must

have been in the Philippines.

Girhard: No. I don't really recall it.

Farley: I remember him talking about a million casualties and they were building hospitals around the area to accommodate thousands of casualties. Do you remember operation coronet?

Girhard: No. That doesn't ring a bell to me.

Farley: How about Operation Olympic?

Girhard: No. When was that?

Farley: That was supposed to be the assault on the home island. So you weren't told to get your troops ready to...

Girhard: No. We knew what we were reading. It was just a question of which service we'd get. You know, which units we'd want to try to decode. I'm sure we had (B% it) addressed... so you could tell where a message was going to. We arranged with Pappy to (B% put this address before we) decoded it. In other words, every message, before we decrypted it, we'd send it down to Pappy. Pappy put on the unit circular... who it was going to. He knew where messages were going. (XG/weak). You could certainly tell about the movement of units, because certain discriminants went to certain levels, you know. Each discriminant had a specific... when you really looked at it, and read the message, you just saw the level that the... you know if it went to all commands, corps and divisions, or just to commands or whatever. I'm sure that in the traffic analysis (2G), he was able to tell if the unit moved. If we hadn't provided that information in advance, in reading the messages... Certainly in the early days, we were able to do that type of information from our, mainly Australian, maps of the units, because the address system... we were always going to delete.

Farley: Charlie was the end of the war telegraphed in COMINT? Were there feelers that you remember...

Girhard: I believe there were. I think they sent messages... (TR NOTE: speaker fades to nil)... version of whatever code they did. (XG/too weak)... where in came out in unenciphered versions I guess. (XG/weak), but essentially, the messages were not. They were all forwarded to the administrators telling the troops and so forth what was going on. It's interesting that they sent (1-2G) in the code. But I think you can see why. I think that's where their troops got the word. We were reading a lot of messages. All we did was didn't apply the additives. We just sent them through the code decryption only.

Farley: Did you ever see any messages to the isolated Japanese troops saying “fight the good fight, keep up. Do and die for the emperor”? I'm thinking about toward the end of the war now.

Girhard: I would think there was something along that line. I don't recall that but there were... (B% We) tried to keep the morale up (XG/weak) little bit of

help that we never got.

Farley: Do you remember when the quantity of intercept started to diminish? Can you pinpoint any date period?

Girhard: I think we always managed to get a fair amount. I don't think (XG/fades). What we lost down in (B% high line) if we got the units up far enough, we were picking up something else. Certainly when Rabaul stopped sending messages, Hollandia stopped sending messages, we lost a lot of messages. A lot of these we couldn't pick up because we didn't have enough intercept. Also the intercept types, you know, as we moved up to Moratai or where ever, (2-3G) we could pick up other stuff that we didn't... But even the isolated bases (1G) many messages when they were... did a lot more, you know, telling how sick they are and weak. When (2-3G) and get the code books... I don't know whether you know Don Gillespie or not but he was a Navy Captain. He was out there with the Navy, and one of his duties was to go into Japan right after the war and check the chemical (B% indexes) and see how they were doing. What he found was that almost all of them... the (B% equipment) machinery was all intact. Where they really got into trouble the inability to bring in raw material. They'd lost so much shipping that they couldn't get the raw material for the chemical plant. It wasn't the chemical plants that were bombed out, it was the absence of raw material that cost them. See, they were dependent on Manchuria and a lot of these areas to get raw material for the chemical plants, and... it wasn't our bombing that knocked them out, it was shipping that caused... There was the same problem... they couldn't get down to Wewac and that type of. I think we really took a toll on their submarines... . I mean our submarines, and I guess bombers too, but I think... Have you ever read how many we sunk by submarine?

Farley: No. Thousands and thousands of tons.

Girhard: But when I think of all the messages, when I used to strip them out... These were easy messages you know, because you could see what's coming up. They'd give you the latitude and longitude each day, and places. The whole schedule was laid out for three or four weeks. (XG). You know, if we've got any subs out there, they ought to be able to...

Farley: Yeah. Just plot their course and the sub could be any place along that route.

Girhard: When we were reading the shipping... we could send message after message of that type. Of course this was in the early days. Before the Midway time and in that time. A little after that, they still had a lot of shipping. That's all that this code did was... (XG/ weak)... they'd give the latitude and longitude even when it wasn't (B% near) the islands. I don't know how many messages of that type we sent in (2-3G).

Farley: Charlie, did you ever get any kudos as a unit? CB as a unit get kudos from McArthur or military commanders?

Girhard: (XB by interviewer) but we never got a citation.

Farley: That is shameful, really.

Girhard: Never got a citation.

Farley: There was some consideration of giving a unit citation. Aiken was pushing that. I don't know what ever happened to that.

Girhard: I'm surprised we didn't because quite a few people got the legion of merit.

Farley: What, were there twelve people?

Girhard: I think it was about that.

Farley: At least ten at the beginning and then two later. I think Erskine and somebody else later on. But at least twelve I think. Which was quite an accomplishment for a single unit.

Girhard: McArthur, I don't think, cited anybody. (2G) I'm sure Abe never (XG/weak).

Farley: That's a shame.

Girhard: (1G) signature many times. He can (1G) very (1G) when I was still there (B% with) Aiken. I don't think I was ever the party (1G) or anything like that.

Farley: Well, he inspected the unit a couple of times. I remember seeing him wandering through the area.

Girhard: Any time he came to inspect, he was... you know anything that looked nice, he wouldn't pay any attention to.

Farley: White glove inspection huh?

Girhard: He came up to San Miguel and...

Farley: That was primitive living wasn't it?

Girhard: I think he was well (XG/weak) (TR NOTE: Girhard sections continue to be very weak). SOBA coming now. (XG). But, certainly when it came to support for our unit, I don't believe there was any outfit any better treated.

Farley: Well, you made him look good.

Girhard: The point is, on logistics, I never knew him to give us a hard time on anything that was related to... if we were sending somebody forward... I guess this is the way you get ahead in this world, in the services. I'm sure it's still the same way.

Farley: Must be. Charlie, how did you find out about the end of the war? Where were you, and what was your source?

Girhard: (XG/weak).

Farley: You were still in San Miguel, weren't you?

Girhard: I was in San Miguel.

Farley: Can't you recall that evening?

Girhard: No. I can't even recall it. I think it was rumored but... How did you find out? Do you remember?

Farley: Yes. We were... Oh about six or eight of us were down to the local barrio, sitting in one of those huts. All at once, a jeep load of guys came screaming down the main street yelling “It's over, it's over, it's over”. That was it. It was hard to believe. It was amazing.

Girhard: It was so fast, you know.

Farley: Just a few days before that, the dropping of the atomic bomb. Did we have any indications from any American sources that something was going to happen, and to watch for a reaction in COMINT?

Girhard: Not to my knowledge. I don't think we even did that kind of thing in those days, you know. In fact, I think that was handled in Washington only. I don't think there was hardly any communication between McArthur and Washington. We had no business talking in the Philippines, particularly Luzon. You know, “I shall return” was the only reason we went to Luzon. That was a wasted... (B% recovering) Manila. We could have landed anywhere in an obsolete part of the Philippines. Our objective wasn't the Philippines. But I think there had to be a lack of communications between McArthur and back home. I don't believe he... I know reading about it in the newspaper, whether it was the Stars and Stripes or something... I didn't realized the bomb was so powerful, did you?

Farley: No. I couldn't visualize ten tons of TNT, as they called it.

Girhard: Ten tons, fifty tons... I think there was an indication that the bomb was powerful but everybody was shocked. When was that? August?

Farley: August of '45, right. August 12th or there abouts.

Girhard: So we were only there about a month. I know we were practically reorganized. We had an intercept set up there that we never had before. We'd get all the messages right off the press.

Farley: Charlie, when the war ended in August, was there a problem to keep the analysts and the administrators and all of the people busy? Do remember the problems you had with that?

Girhard: Yeah, well there wasn't really much you could do.

Farley: I remember you told me to start writing a history of my problem.

Girhard: Yeah.

Farley: Did anybody ever complete a history from the American point of view of CB?

Girhard: I don't think so. I think the newest ones was pointed more toward the SIS (B% record). Certainly (1G) which could have been a lot better.

Farley: The Aussies did a history.

Girhard: Did they? Do you have a copy of it?

Farley: Yes. I'll show it to you after a while. But I'm surprised that the Americans or Abe or somebody didn't direct that someone write a history of CB from the American point of view.

Girhard: I think about the only thing we did was work on the SIS record. Obviously, we didn't do a lot between August and...

Farley: Right.

Girhard: I remember the Manila Dodgers play a lot of games. They had a major league baseball team there.

Farley: We used to go down to the Manila Symphony and theater, a lot of those places.

Girhard: That's an area we could have done a lot better in because (XG).

Farley: Right. You had gone home by the time we moved from San Miguel back to Manila? Right on the water front?

Girhard: I don't know whether I had or not. I spent a lot of time in Manila but I can't recall. When did we close San Miguel down?

Farley: It was probably December.

Girhard: I left in December. I was spending more time in Manila I know.

Farley: Tell me about the move, or the contemplated move of part of CB to Tokyo. Was there any preparation at all? Or did they ask for volunteers who wanted to stay in the service and go on to Tokyo? Do you remember any of the discussion on that?

Girhard: I remember talking about it, but I don't know whether (XG). I think everybody would have kind of liked to go on to Tokyo.

Farley: Who went up besides... Well I don't know if Abe went up. Did Abe go up there?

Girhard: I don't think Abe did. Hugh went up because of his linguistics. But I don't know. Did anybody go up after I left? Very few went up there.

Farley: No. Was Larry Clark... he was still back in Australia? Or who was left back in Australia that closed the gates? In Brisbane. Was He at Ascot Park? Glenn Tanner was back there. And who else?

Girhard: I don't know who it could be. I don't think we kept anybody back there very long did we?

Farley: No, no. We left a few people back there, as I say, to clean up.

Girhard: Did they stay until the end of the war?

Farley: Yes. In fact, I think some of them went from there back to Arlington Hall.

Girhard: Is that right? I don't know. I'm trying to think about Larry. Did Larry stay back or what? I don't know.

Farley: I'm not sure. Can you tell me at all, about the TICOM effort. Were you involved in that at all? The selection of people to go on the TICOM teams.

Girhard: That was all done from Washington.

Farley: Was it? Vic Rose and Barch and some of the other people. Ross Mulaney, Aiken. Vic Rose went to Korea with the TICOM outfit. I've forgotten what American military unit he joined. Infantry unit. Then the rest of them went apparently right to Japan and scattered to the wind.

Girhard: Did they get anything out of them?

Farley: Not as successful as it could have been. Vic Rose said that he manage to find some Japanese Navy documents that had been buried. He met a Japanese Navy Captain and the Navy Captain agreed to take Rose out to some site some ways from Seoul, and they uncovered the documents that had been buried.

Girhard: I'm sure that was initiated from Washington wasn't it? Again, we didn't do anything. We could have from our point of view. I don't even recall being on the discussion that we should do it. I know the German TICOM operation was a pretty (1G) one. I think they did a pretty good job.

Farley: That's right. So you weren't involved the dismantling of CB?

Girhard: Well, I was certainly... I'm trying to think why... when Ernst left, I was the CO up at Camp San Miguel.

Farley: Had you made LtCol. by then?

Girhard: No. I didn't make it until after I got... I was promoted to LtCol when I got out of the service.

Farley: Oh, OK.

Girhard: I'm trying to think... We got rid of... I think we turned that over didn't we? To somebody else. I thought we did. I must have been around in turning it over because I can't recall anybody replacing me as CO.

Farley: I don't think so.

Girhard: Ernst... I don't know where Ernst went, but he was the CO.

Farley: That must have been just before we moved back to Manila.

Girhard: Abe and Larry must have been down in Manila. Were they?

Farley: Yes. Wasn't Larry at the water works building there for a long time? Administrative section?

Girhard: But I think I was... I must have spent most... you know, the last month must have been in Manila all of the time. I remember going to the ball games and...

Farley: Manila hotel.

Girhard: No. It wasn't the Manila hotel.

Farley: Wewac. Not Wewac. What was that? Wewac country club?

Girhard: No. It wasn't there. It was in one of the big apartment buildings downtown.

Farley: Let me switch. (TR NOTE: Switches tapes.) Yeah, it starts with a B... (B% Ballio).

Girhard: Ballio. Take the plane up there. I remember Jim Moke. I don't when Jim Moke got out there. Jim and I use to go down to... every weekend we'd go down to the (B% Gai Thai). When did Jim Moke get out there?

Farley: He stayed there as far as I know. He was still there when I left.

Girhard: He must have come out after the war, didn't he?

Farley: Could have been.

Girhard: Because I don't remember Jim being a part our unit until...

Farley: It was after the war. I know it was. Because I was the personnel officer. Chapman was adjutant. I left from the personnel section. Moke and O'Conner and somebody else came out.

Girhard: I know I went out to the ball game, and somebody stole my jeep. Chappy was trying to get me to...

Farley: Ed Dean and I went to the movies one night, and somebody stole our jeep. This was fun and games. But Chapman and Bill Thomas I think went up to Tokyo and set up the administrative section.

Girhard: We must have turned it over because...

Farley: Turned San Miguel? No. I'm talking about from Manila. From Manila they went up to Tokyo.

Girhard: Yeah, yeah. Oh, I see.

Farley: After we left San Miguel, we came down to Manila. Then...

Girhard: When do you think you left San Miguel?

Farley: In March... I'd say December. Maybe it was January Charlie.

Girhard: I don't remember just how that got turned over. I remember one time a Fillipino came in to see me but that was the Aussies that sold him a building (1-2G). Five dollars.

Farley: Great.

Girhard: We had to guard the buildings or they'd carry it away piece by piece.

Farley: Rip off those metal roofs. Were you up there when the typhoon hit?

Girhard: I remember some rain, several bad rains, I don't remember a typhoon. Did it take off...

Farley: Peeled off the mess hall.

Girhard: I certainly remember some of the laundry jobs that they did. They smelled worse than...

Farley: Yeah, beating your uniform to death in the creek there.

Girhard: And the (B% terrible) smell that you'd get.

Farley: Charlie, let me ask one question you might remember. What happened to the material? The files, the aids that we had in San Miguel. All the paper. All the material that we used.

Girhard: I think we just probably destroyed it.

Farley: It was destroyed. Did the Aussies keep any or take it back.

Girhard: I don't know about what the Aussies did, but I think we made an effort to destroy everything because what could we do with it?

Farley: I remember stirring many tons of ashes there.

Girhard: I think we had (XG/weak). I remember a message that came back about a year after I got home that had a... apparently in one of the file cabinets, they found a file with messages I had signed. Apparently in one of the files, a whole envelope had been left. But I guess I got (1-2G). No, I think we made an effort to destroy everything because I don't think we shipped anything back to the States that I can recall.

Farley: No. The only thing we shipped back was the (B% ABAs) and I remember, as I told you before, ten tons of ABAs being delivered back to Arlington Hall.

Girhard: I guess we could have done a lot more after the war, when you get it because we had an unlimited source of people.

Farley: Yeah. People who had points who wanted to come.

Girhard: Well, points didn't make a lot of difference for a while anyway.

Farley: Is there anything else we should discuss about the Philippines on Baggio or Manira?

Girhard: I think that we've (2-3G) almost all our intercept even starting... I think we had a couple of them up to the north. You know we had the airplanes to carry the traffic back and forth.

Farley: That light plane from San Miguel to Manila.

Girhard: We had a Sergeant that would fly. We also used it to take us places we wanted to go. I remember that we had problems landing sometimes because the (B% Carabalis) would be on the field. First we started out buzzing them to get them away and that didn't work. Then we started dropping smoke bombs to get them off.

Farley: That was a rough life.

Girhard: I remember once also, that the head of the WAC came out to visit. Was that after the war or before the war?

Farley: That was after the war I think.

Girhard: (B% Evita Copavey).

Farley: The WAC CO's name was Brown.

Girhard: Yeah.

Farley: LtCol Brown, or Maj. Brown or whatever she was.

Girhard: We had planes buzzing the area, remember? The bathing area. But she came out to visit.

Farley: What was the purpose, I wonder? Just to see her heros in war conditions.

Girhard: I guess (XG/weak). I remember Gen. Aiken. Even after the war, he was a... you know, chewing you out for everything. In other words, you'd think, "well, we've done a job, and here's the inspection." He keeps everybody waiting, on the run, and looking over the things that you've got, and not looking at anything good. He didn't want you to tell us about that we had that camp that Corry had set up with Sam Esteban. "Close that today."

Farley: That was an R&R camp wasn't it?

Girhard: Yeah. So we had to close that right down. Hard to understand a fellow like that.

Farley: He didn't want anyone to relax or be comfortable I guess.

Girhard: Well that's his way of maintaining control I guess. I don't know anybody that ever really knew him, although some of the people seemed to talk to him later on. He seemed more...

Farley: That's why I was reluctant to invite that fellow to our reunion even though Owen... I've forgotten his last name, said he should have been invited because he was the chief. I said well...

Girhard: Owen let that last one get out of hand. I don't think most of the guys really wanted to come.

Farley: No. No. Well when they found out who was coming... some of those people I didn't care if I ever saw again... well anyway, that's another story.

Girhard: But I think even Dick Collins and the ones who came didn't really... they were doing us a favor. How's Owen getting along?

Farley: Lynch, Owen Lynch. Charlie, anything else about the Philippines we should record?

Girhard: I don't know. That's...

Farley: Sinkov, and Clark I think came back to the hall before you or after you?

Girhard: Before.

Farley: So when you came back to the hall... we might as well just continue... You weren't there for the surrender in the Philippines or Yamashita's trial. Did you go to any of Yamahita's trial?

Girhard: No. Seemed to me that I got home almost the day before Christmas. I flew back home.

Farley: One thing that I forgot to ask you Charlie... Do you mind if I go back quickly? The shootdown of Yamamoto. Did CB intercept anything related to that?

Girhard: Not to my knowledge.

Farley: The Navy is claiming credit all the way. Do they have a right to?

Girhard: I suspect so. What was the date of that?

Farley: That was in early '44 I believe. No, late '43 I guess. Early '44.

Girhard: I suspect there probably was.

Farley: Oh is that right. You think...

Girhard: You see, that was over the Navy territory. We were... the way the responsibility was... Naval and naval air had responsibility over in that direction. New Guinea (XG) (TR NOTE: Farley sneezes and moves the microphone. Probably three full sentences missing)... unless we had duplication in some of these... I can't believe (2-3G) involved, I wouldn't think about it.

Farley: Yeah, that's what I thought. That was before my time but I just thought you might remember whether there was one message that corroborated what was in the Navy communications on that. That's all right. (TR NOTE: Audio improves at this point). But when you went back to Arlington Hall, what assignment did you have?

Girhard: (XG/weak), European section.

Farley: Great, great.

Girhard: Maybe for six months or something like that. A vacancy came out with the Chinese, in the far eastern section (TR NOTE: Girhard continues to be very weak). I think that Mr. Rowlett was too friendly to anybody that worked with Abe and Kully.

Farley: Yeah, I know. Charlie, I don't think I'll take it any farther than that.

Girhard: I don't think it's really...

Farley: Do you think there's any need for it... No. Because that was sort of a let down period. The lull after World War II. Can you think of anything that we have overlooked. I had sixty some questions there.

Girhard: I don't know. You know it's been so many years. You don't write things down.

Farley: That top one is an outline of CB's history that I was going to do or give to somebody.

Girhard: (2-3G) McArthur's cable 11 April... Is that right, 11 April '44? That doesn't sound right.

Farley: No, '42 that should be. Yeah '42.

Girhard: So I was out there before he sent the cable back. In other words, it was all laid on before... he wanted to get a few troops out there, and then... but I don't know (1-2G) one of McArthur's headquarters was set up, but anyway... special orders number two was my assignment and I'm sure they didn't write orders every day.

Farley: I'm disappointed that there isn't a history. I was hoping that at least somebody had started a history of CB.

Girhard: Do the Aussies have one? Or did they just do their...

Farley: We'll go in the other room and I'll show you what they have.

Girhard: I'd like to see Captain (B% Swoe's) report.

Farley: Yeah, I'll show you one of those.

Girhard: Did Slip send back reports?

Farley: No. I never saw one of his. He might have done it in a secret channel without giving copies to CB.

Girhard: Knowing Slip, he probably doesn't. Fuld is the slippery one. He was a smart guy, but you never really knew what he might be writing down.

Farley: Charlie, I can't think of anything else to ask you. What do you think we ought to classify these tapes?

Girhard: I don't know. These days everything's probably open, isn't it?

Farley: Most of it but I would still suggest maybe SECRET COMINT CHANNELS. What do you think?

Girhard: I would think so. I mean, to me, I never get used to some of these I read in the paper.

Farley: You think that's high enough?

Girhard: I would think so.

Farley: OK. Let's make it SECRET COMINT CHANNELS and leave it that way.

Girhard: But, you know, apparently what... I don't know how much the Puzzle Palace guy got out of here. How much he made up.

Farley: Not much. Most of it is in open sources now. But how much of it is accurate is questionable.

Girhard: You know, to make a story sound good you've got to...

Farley: Yeah, that's right.

Girhard: Well, why don't we knock it off. I do appreciate this Charles. It's been great. Thank you mucho. I've been trying to get you here for two years.

[TR NOTE: First portion of interview ends here.]

[Auxiliary session of 28 October 1994; following is UNCLASSIFIED]

OHNR: OH-1994-xx DOI: 28 Oct 1994

First: OH-1982-22 (p. 2) of 27 Oct 1982
TRSID: [redacted] DTR: 12 Jan 1998 (b)(3)-P.L. 86-36
QCSID: Text Review:
INAME: GIRHARD, Charles E. Text w/Tape:
IPLACE: NSA, OPS1, Ft. Meade, MD; Conference Room
IVIEWER: [redacted] BAKER, Charles W.

[TR NOTE: It is interesting to note that Mr. Girhard seems to have a completely different voice in this continuation as opposed to the first interview. He also seems to remember much more detail than he did in the first interview, even though it is twelve years later.]

Baker: This will be a continuation of NSA Oral History 022-82 with Colonel (1G) Charles Girhard. We're in a conference room in OPS-1. Interview will be UNCLASSIFIED. The date is 28 October, 1994. Interviewers will be Charles W. Baker, and [redacted] Like we were discussing earlier sir, we've got your earlier oral history with Bob Farley as probably the best we've got on CBB [Central Bureau, Brisbane, Australia]. [redacted] has some very specific questions she wanted to ask you about your service there.

[redacted] OK. First I wanted to ask you something relatively easy. When you came to CBB, you mentioned that one of the people came with you was Holmes. Is that the same Holmes that did the alcohol and the...

Girhard: That's correct.

[redacted] OK good. I just wanted to verify that. What I was interested in having you tell me about what it was like to do cryptanalysis before the IBM equipment. How you did it, what you tried to do.

Girhard: Well, actually I think the big problem we had initially... see, the idea I think was, with Gen. Aiken, he wanted to set up a... he was my boss originally back in Washington. His idea was to set up this thing. In the initial, I'd say in our first six months, we had so little intercept that we really didn't have hardly any raw material to work on. The work that we did... A British Maj. Webb... I don't whether you read, had brought out of the Singapore area some naval air ground material out of a system called Yo. He had maybe three to four hundred messages. The messages were relatively short, so all the work we did on those was by hand. We had no machine facilities in the early days. We had an intercept station in Melbourne run RAAF that copied some high level... I think we got 25 or 30 messages a day which we did no work on whatsoever at that time. So I'd say, before we got the IBM material, which I believe the machines started coming in about Oct of '42, after we moved to Brisbane, so we really didn't have a requirements for the machines so to speak because we didn't have any raw traffic to work with.

Baker: You just weren't getting the Japanese army traffic you had hoped.

Girhard: Well, we had no intercept. All the Australians that were just back from the Middle East, they had all their troops. When I arrived in Melbourne, it was a blackout in Melbourne even, so when you got out of your hotel room, you couldn't find your way back hardly. As a result, there were no Australians. They were all in the Middle East or on their way back. So we just didn't have any intercept to support us.

[redacted]: Now, Joe Richards says that you constructed, what did he call it, like a brute force book, or a book by hand from all the messages.

Girhard: (1-2G) not really. To me, we got the... we really only had to use the IBM on the mainline systems. Those were almost impossible to... but we did do a certain amount. Anything you can do by machines, you can do by hand. Just takes longer. But, it was only... when was the break on 2-4-6-8, because the first major break you see. So I'd say that up until '41 other than the success with the... I know I worked a little bit on the army air ground codes that they... and again I think they were mostly a daily additive or a procedure, but you could do that by hand because... .

Baker: This was voice? Or was it Morse?

Girhard: No, it was Morse. We had the machines fairly early. The machines came along pretty much at the same time we... even before we got more intercept.

Baker: So this something probably driven as much by Arlington Hall sending you support as Gen. Aiken acquiring it.

Girhard: Well, of course, he put the pressure back on...

Baker: He was very forceful in that regard?

Girhard: Well, he was head of SIS at the time.

Baker: So he had the connections.

Girhard: I had a year of experience working.

Baker: This was when, 1940?

Girhard: I came on active duty in January of '41, so I spent 13 months... He was the boss there. Later during the year, he went out to take over.

Baker: So he went directly from there to the Philippines?

Girhard: Right. Let's see, when I got out, one of the things I did was read messages from the Philippines on an M-94 because it was still... we still had...

Baker: Still had Corregidor.

Girhard: That was before Corregidor... four operators came out of submarines. I think there was Lt. Brown and three Sergeants and they set up... in Brisbane we had 126th RI company initially when we were in Brisbane.

Baker: This is the later Col. Harold Brown?

Girhard: Right.

[redacted] Can you remember some of the other systems that you worked on? You said Army air ground.

Girhard: Well, the army air ground, and this Yo which was naval air ground.

Baker: Is that Y O?

Girhard: Yeah. You know why? I think that's the Japanese word.

Baker: An acronym of some sort?

Girhard: Yeah. I think that's what they called it because it's a Japanese letter. We made many captures of lower division down. Every one that I was familiar with was a one time pad. In many occasions we would capture a whole stack. We made, actually, several captures. Only two that were significant. We did catch a lot. They were hand written one time pads. If the messages were half written out, we could never find them on the air. In other words, if they were hand written, I think they used them and then they threw them away. We had them that high, of one time pads ready to use, but they never were used. I think if they were used they... (TR NOTE: Mr. Baker often attempts to finish Mr. Girhard's sentences). So, as far as division down, to my knowledge, I don't think we ever got to... I think this actually was a first (1B).

Baker: Must have been a hell of a distribution problem.

Girhard: It really was. It became a... because that's where we really... after we captured the Sio capture changed the whole... January 1944. It changed our whole... I did some work with Cdr. Nave. He was working on the naval air ground. The Japanese were organized like we...

Baker: (TR NOTE: Phone rings) I better answer this. (TR NOTE: recording stopped).

[redacted] Which one is record Charles?

Baker: It's already going

[redacted] Oh, you've got it on. OK. All right. Good. Do you... Are you familiar with the term “the half Latin square”?

Girhard: I don't know exactly what you mean by half Latin square.

[redacted] You repeat the numbers one way.

Girhard: Oh, I think that's what you see when they... originally they started out in an additive system. Then they switched over to a substitution square which we called just a substitution square. As a result, there were repeated digits and that made it very easy for us to reconstruct. The squares were really not too much of a problem to reconstruct. I didn't know what the terminology was called, but we just called it the substitution square.

[redacted] Were the Japanese the first to do that?

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Girhard: Well, to my experience... for some reason they switched over from an additive system to the substitution system. That's, of course, how we able to break into 2-4-6-8 when Joe Richards noticed the restriction of digits because of this type of square. Prior to that, they were using a one time pad with a one time pad as an additive. When they switched over to this substitution square, we were able then to reconstruct the substitution square. That means we could place all of the messages as to where they started.

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So it wasn't long until we came out with quite a few programs. Fortunately, in the early days... when you start out on an additive system, you take one group and assume a value for it, and we actually put 0000 at the group, which later turned out to be period. So we came up with then quite a few code groups on this arbitrary basic. But then we noted, shortly after we had quite a few code groups, including a lot of numbers, that if we applied an additive of 6666, in other words, make 0000 6666, that the numbers from 1 to 100 with the middle two digits with the code group we had. So we then knew that we were on the true base. We also had quite a few recoveries. In addition to that, the code... the shipping code itself had a lot of groups that were patterned. One of the most common groups... In Ramage, they had to resend a lot of the messages they had that referred to the Chinese telegraph code. So as you'd go along in text... I believe 2112 was the group, but they'd first say 2112, and then they'd go to the Chinese telegraph code which is available anywhere. You could go then, from the Ramage version to the actual character. So that was quite helpful in recovering additives (1-2G) recovering groups because you could know what was in there. You'd know there was a number there, so you could recover that column. Also the place-names were semi-systematic. Every message had a long address. It always had, I think, 0990 happened to be the group for address. Then you could... in Rabaul, wherever the messages were going, it would have the actual internal address. All of them had an internal address. So, that again facilitated greatly our recovery of the additive as we started breaking into the code. Also the place-names of latitude and longitude. We found out later, as we broke into a lot of the messages that, an awful lot of messages were giving ships... what was on the ship, what his plan would be. In other words, it would be going down at... the 21st it might be in Hollandia, and the 22nd it would be here, and the 23rd... Usually this would be maybe three weeks in advance. I think that was very useful to... I think probably the most use of the 2-4-6-8 was to get the ship positions as to where they would be and when. So, in a reasonably short time, we were able to recover... .

[redacted]: Now you actually went to Sio New Guinea to look at the material.

Girhard: No. In the case of Sio, I had made several trips out to ATI Sio, which was

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a combined translator group who always went with our forces. You know they were translators and helpful. We described to them what we would like to have. Describing the cryptographic material, and type of things that we knew had... in the case of this, they called me from ATIS which was also located in Brisbane and said they had a trunk that was full of materials. So Hugh Erskine who was the head of the language section and I went out there, and we saw this. When I saw it, it was mildewed. They didn't name it, but I saw immediately a code book, an additive book, and lots of messages. Immediately (1G) Hugh just picked it up and brought it back to headquarters where we were. Of course, then we took it into our kitchen there, where we served the food. You kind of... it had been in a ditch where they picked it up. So we pulled it out, we find it had the main line code book, main line additive book, substitution squares, a whole slug of messages that were decrypted. They had the additive and the whole bit. And some of these one time pads that the division had.

Baker: To talk to their lower level troops.

Girhard: Yeah. All in a footlocker that they had buried down, I mean they hadn't really buried it.

Baker: It was a metal box right?

Girhard: Metal, yeah. Kind of like a footlocker. But it was so horrible. You felt like you...

Baker: Pretty heavy I guess?

Girhard: Yeah it was. So, we were able then to... of course we got the code book out. The translators (1-2G) translated it to Ramage. Of course we (B% took) the additive out and put it into the machine room. In the mean time, we sent the whole thing back to Washington by radio. We had tremendous communications with Washington because I sure four fifths of the traffic... but we sent the whole code book back with the numbers and the Ramage.

Baker: Oh really? You sent it back electrically?

Girhard: Yeah. We also sent the additive back electrically.

[redacted] Was that very difficult to have the IBM machines come out... you know, strip off the cipher and... ?

Girhard: Well, we had some outstanding IBM people. We had learned a lot from 2-4-6-8 you see, because originally we would do all this by hand. I worked together... one of my jobs, in addition to running the crypt side, I was also coordinator with the IBM, so we would talk with each other. I'd show him what we'd want to do and how we want to do it.

Baker: These IBM people were military guys correct?

Girhard: Yeah, they were military, but we had four or five guys that had worked for IBM. We had the choice of personnel... .

Baker: We see that in the Navy too with their development of a (2G).

Girhard: We had three or four guys that had worked for IBM. In addition to that... see, we started out in a garage, putting in IBM. We were air conditioned because the material used tubes. With tubes, you had to have air conditioning. So, by this time, which was 1944, so this was more than two years after... so we were able on 2-4-6-8 to work out a way while we would... you know, we'd edit the starting position... you know, we'd punch up the additive, put the starting positions on, and they could sort out and get the additive and apply it to the messages. We'd go through the messages, and the TA people would put the address on it... you know, where it's being routed from. Our crypt people would go through and double check the indicators to have a... where to start in the additive book. Then we'd send it over to the IBM room. We operated the IBM 24 hours a day, seven days a week. Although we didn't have a lot of machines, if you utilize them full time...

Baker: Did you have any machine problems? Did they ever go down on you?

Girhard: No. We had pretty good luck with them.

Baker: Power fluctuations and things like that?

Girhard: No. We never had any... and we worked so closely together. I know, several times, Washington came out to us and wanted to know how we did these things. The advantage of being small, and also talking to each other. I know during the war, I came back here for two weeks. Even though they had a slew of people, I don't think they did a lot of talking to each other. Another thing about the additive system... you talk about the word garbles, they mentioned, but seeing and additive system, and you've got a hundred group message. They always gave a group count. If the group count didn't agree with the end of the group... If you went off of one group of additives or you ever get out of phase, then the message won't work. When we'd send them through the IBM room to be... (1-2G) come out to send the translators, there was always a bunch of them that didn't work. So we then had to send them back to our people to find out what happened.

Baker: Was this because the Japanese weren't careful?

Girhard: No. It was... interference with the radios. Some radio operators are better than others.

Baker: What did you think of the Japanese radio operations? Were they pretty careful.

Girhard: I think they were pretty good. I think the Japanese, with anything they do, are very efficient.

Baker: So you came away with respect for them?

Girhard: Yeah. I think they run into a lot of trouble with distribution. The fall of Japan was mainly base on the inability to get any raw material back to Japan.

[redacted]: Now, later on, when some of CBB went up to Hollandia, how did they divide up the work? Like what Brisbane was going to do, and what Hollandia was going to do?

Girhard: Well, essentially, we handled all the high level back there. They concentrated more on the air ground type stuff. To my knowledge, I don't believe they did any of the high level stuff.

Baker: They're there to read perishable, up close stuff.

[redacted] There's a unit of WACs, and they say that they did 2-4-6-8 but it wasn't necessarily the most up to date stuff. That they did all of their stuff to fill in the gaps.

Girhard: So you've talked to some of the WACs that were in Hollandia then?

[redacted] Well, that's what...

Girhard: See, initially we had a big body of WACs that went to Hollandia. We had a few that came to Brisbane, but they came so late in the game... it's possible, if they worked on 2-4-6-8 it must have been decrypting some...

[redacted]: That was an exception you would say?

Girhard: I would think so. It's possible.

[redacted]: I was surprised at that and that's why.

Girhard: See, with the radio communications we had, we could send it from Hollandia down to us, you know. We had no problem getting messages. Well, as you can see, we sent the whole code book, and the whole additive book in three or four days. 1000 groups in Ramage.

Baker: I need to stop for a second. (TR NOTE: Recording stopped).

[redacted]: How about when everybody went to San Miguel? What did Brisbane do then?

Girhard: Well, we closed Brisbane up completely when we... we flew by air. We had our advanced party going up first.

Baker: What did you fly up in? C-47s?

Girhard: I think it was a C-47. I never was on a boat during the war.

Baker: Really, lucky man.

Girhard: I was gone almost four years, and I came back to Washington for two weeks and a couple of weeks off during the middle and it was all by air. I got into San Francisco... I hoped to spend a couple of days, and they had me out on the next plane.

[redacted]: Yeah. I enjoyed that part of your interview when you were discussing you trip over.

Girhard: In the nose cone of a B-24. With no heat and five army blankets.

[redacted]: Recently, we got a request from people in New Zealand wanting to know what New Zealanders did at CBB. If there was an intercept unit. Do you

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know anything about that?

Girhard: We had one New Zealand officer with us. He was a technician type and I'm sorry I can't remember his name. But to my knowledge, there was no New Zealand intercept. We had commander Nave of the British, we had major Webb who was British, but no British troops. Of course we had the RAAF and the AIF.

Baker: I don't real whether in the earlier interview with Bob Farley whether you discussed commander Nave or not. You know he's been a center of controversy, or some of his supposed quotes have been centers of controversy about Pearl Harbor in recent days. What did you think of him? Was he a (B% superior) cryptanalyst?

Girhard: I don't think so. I think he kind of... I shouldn't say it but I think he came... they catered to him you know? He was a nice man. Both Major Webb and he were British guys, now how they got... Major Webb came from the... I think they kind of expected to have more responsibilities. I think they got the air ground and he had four or five people working with him. But it was not a very big operation.

Baker: Were they from Singapore? Did they come from (2-3G)?

Girhard: Where Commander Nave came from... I know Major Webb came from the other area, but where Commander Nave came, he was there when I got there.

Baker: I think he had probably relocated to Australia.

[redacted]: Right. He was at Melbourne. He was a FRUMEL for a brief period.

Girhard: So I hadn't read his books so... I liked him personally, but I don't believe that he... the operation he did was probably four or five people with him. They did make contributions on the naval air because part of the operation (2-3G) Rabaul area was naval aircraft. So he did work with... that (2-3G) my knowledge, the only work that we did on the naval part was the naval air that he was working on.

Baker: OK. Well then, what were you working with him on? You said everywhere that you worked with him.

Girhard: Well I went up just to see what they were doing.

Baker: Just for an overview.

[redacted]: Did you work on 7-8-9-0?

Girhard: Well see, when... the 2-4-6-8 was the shipping part. Once we got the Sio (B% capture), Sio was 7-8-9-0, 5-6-7-8, and three or four others. In other words, different areas would use a different discriminant. I think 7-8-9-0 was from main line down to all headquarters. Maybe in the Rabaul area it was... I'm not sure what it is, but the main line would use one discriminant and one substitution table. The various areas would use another discriminant and a different substitution square, but they all used the same code book. It was an echelon type breakdown. They were half, I think (2G)

Asian theater used another discriminant. We've got a few messages, but they were all 2-4-6-8, 5-6-7-8, 7-8-9-0.

Baker: It's incredible that you remember all of that after fifty years.

Girhard: I may be contradicting what I said before...

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[redacted] No.

Baker: No. I don't think so.

Girhard: But getting back to the... we read the (1-2G) in one of our messages. Of course, the first thing we read about the message in Sio... one of the first messages we read was a report that, that Lt. reported that he personally destroyed all the documents. So that made us feel very good about it. Among the others, we read about a ship that sunk off of Aitape (1-2G) up there. We showed the message to Gen. Aiken. It had the... also we had the instructions as to when the new additive book would come in. We were in business because the code book didn't change. When the additive book changed, it means we're in trouble [redacted] When we read about this, he arranged for some divers to go down on the ship. We again, told them to look for something in a cabinet, in a safe. It was in the same type of... the ship had burned for umpty-ump hours. That was when Erskine and I and Sgt... he's here today.

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[redacted] Yes. (B% Skofield) I think.

Girhard: We went up to... they picked it up and brought it up to Finschhafen, is where it was. So we got on a plane and took off and went up to Finschhafen to look at the materials. We opened it and we saw that we had exactly what ever we want, but it was completely burned. It burned for twenty hour, the ship supposedly. The whole thing was completely charred.

Baker: But you still had it all intact.

Girhard: It was all intact.

Baker: Right, because it was inside a metal box. The reason it was charred was because the metal heated up.

Girhard: ... had the heat but it wasn't burned. But, when you looked at it, I don't whether you can do anything with it or not.

Baker: It would crumble in your hand.

Girhard: But that's when we brought it back to Brisbane. That's when Bob Holmes and I... we actually went over to see a... we got the tip on the alcohol from... I'm trying to think... well, anyway another lieutenant in another section. We went over to (1G) and that's where he suggested the alcohol. We were actually able to reconstruct 97% of the additive book. Again, see we were in business then from practically then until the end of the war. Then they really got into distribution problems, so we read several messages where they took their additive book and did all kinds of funny

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things to it. They told us what to do so we did it. So we were ready to...

Baker: You were on their distribution (TR NOTE: Laughs).

Girhard: See, we had excellent relations with the Aussies traffic analysis, so any of these circuits that would be sending the squares out, or be sending the instructions out, we'd put on double coverage. That's so important to work closely with traffic analysis, because if you don't watch out... I mean they're the ones who direct the coverage. You want to avoid duplicate coverage, but sometimes it become very important to have duplicate coverage. Because when they send these substitution squares out... we could reconstruct them but we'd lose our timeliness because some things might a week's volume of traffic before we'd be able to come up with a substitution square. Anyway, that stuff, it looked pretty bad, but it still had all the pages together. We got another captured copy of the... of course the first one, although it was mildewed, were all very legible. Very interesting... I remember we checked all of our recoveries against the... We found out how...

[redacted] How you did.

Girhard: ... how we did. It showed who was doing what. We had some people that made a few mistakes. Actually we found out there were probably more mistakes copying the additive, when we got them transferred to the machinery room, rather than what was on the actual worksheet themselves. It shows how accuracy is so important, you know, to be sure you copied the right number off the machine. Then the punch operators punch it, they punch the correct version and add the additive.

Baker: Of course, not having any recording equipment, they had to do all of that by hand.

Girhard: That's another interesting thing really, when your talking about all the Aussie intercept traffic was by hand. You'd have to use typewriters.

[redacted] That's interesting.

Baker: That introduces another possible error too.

Girhard: That's right. It's amazing. It takes quite a change of procedure to introduce these typewriters. Because you've almost got to teach your operators from scratch. The Aussies were using the British style. Of course we'd have another problem reading some of the digits of the operators because they'd kind of use short cuts for their digits.

Baker: I guess GCCS did it by hand for the whole war. I wonder if that would ever transition.

Girhard: And they used cut numbers on the Morse. When they sent it, they didn't use the full digit, they'd use cut numbers which were a shortened version I guess.

[redacted] Well, that's really all the questions I had. Is there anything that you've thought of that you would like to add?

Baker: Anything that, (1G) that might have come up during the symposium in your conversations?

Girhard: I was very impressed with what [redacted] was (1-2G) because it's pretty much the figures. I'd only guess at figures like that. I know the end sequence, because certainly, the 2-4-6-8, the capture at Sio and then we got the additive book which solved... it was timely. We were able to...

Baker: When you departed that area, was it from San Miguel? Or did you go into Japan?

Girhard: No. I left from San Miguel. I stuck around until Christmas...

Baker: Christmas of '45?

Girhard: Yeah. Then I flew back again. I stayed on active duty until 1948.

Baker: Then you met your wife back at the Hall?

Girhard: Yeah. She worked on Japanese during the war. She has worked at the agency just about as long as I have. She was in the traffic analysis field all during the war.

Baker: Then you converted later?

Girhard: Yeah, I converted (2-3G) years in the service.

Baker: And retired at (1-2G).

Girhard: By the time I got out, I was a LtCol, then I got out and kept up my reserve. Now I have the benefits that both military and civilian... that's why I retired at 55, there's not much incentive...

Baker: I know it well. Well thank you very much for coming back in and talking to us.

[End of Interview OH-1994-xx-GIRHARD]

[End of Interview OH-1982-22-GIRHARD]